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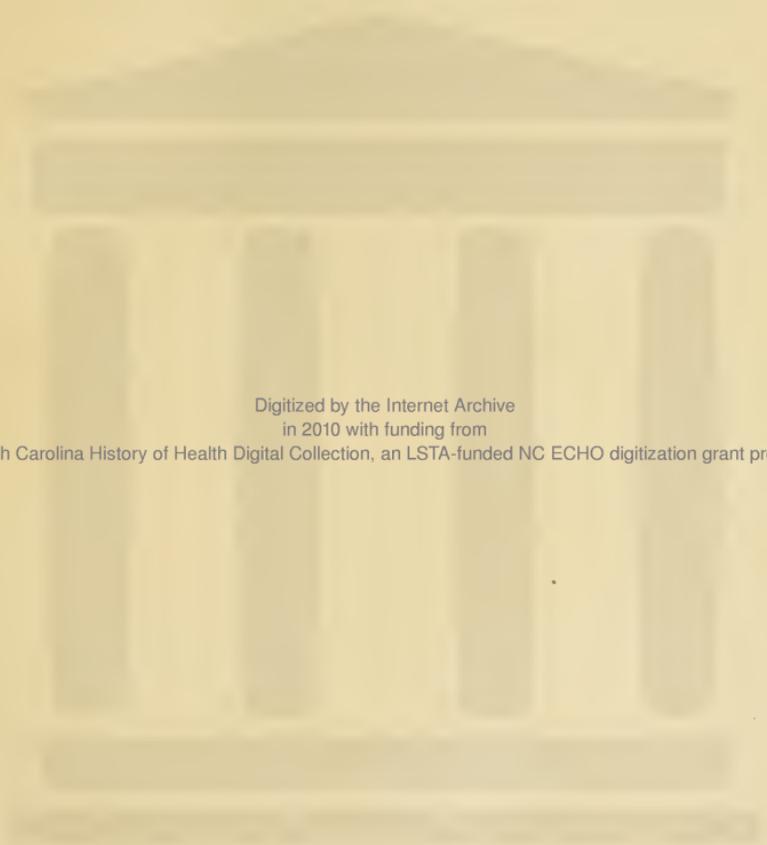
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*Southern Medicine & Surgery*

# THE NEW CHARLOTTE MEDICAL JOURNAL

FOUNDED 1877

Volume 83  
Number 1

January, 1921

\$2 50  
Per Annum

## A JOURNAL OF SOUTHERN MEDICINE AND SURGERY

M. L. TOWNSEND, M.D., Editor

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# LISTERINE

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# The Charlotte Medical Journal

VOL. LXXXIII

CHARLOTTE, N. C., JANUARY, 1921.

No. 1

## Original Communications



### A PLEA FOR THE MORE GENERAL USE OF ARTIFICIAL PNEUMOTHORAX IN TUBERCULAR CASES.

Jos. L. Spruill, M. D., Director of State Tuberculosis Clinics, Sanatorium, N. C.

It is not the purpose of this paper to describe the operation for Artificial Pneumothorax or to discuss the indications for its use, but to call attention to the necessity of having more members of the profession familiar with the operation in order that those patients upon whom the treatment has been begun in the various sanatoria, may have advantage of the treatment at home.

It is estimated that only 7% of all cases coming to sanatoria are benefitted by this operation; including of course those who could have it done on account of lesions in both lungs or other causes; but the principal cause of failure is due to the fact that patients do not have it continued long enough.

In the North Carolina Sanatorium for Tuberculosis the operation has been successfully begun on a number of patients and continued as long as they have remained in the institution, but since it requires from one to three years to secure a complete compression of the lung, and since the average stay of a patient is only five months, it can readily be understood that the operation under the present circumstances is a failure so far as permanent results are concerned. Time and again have we used it with brilliant results so long as the

patient remained in the sanatorium, where treatment was given at regular intervals, only to have them leave, go home and die, for lack of someone in their locality to continue the treatment.

The operation itself, while a delicate one, and not without danger, can be understood and done by any physician who has a good working knowledge of physical diagnosis and the ordinary laws of physics, together with a thorough knowledge of the anatomy and physiology of the chest wall, pleura and lungs.

At present, only two physicians in North Carolina outside of T. B. Hospitals, so far as the writer's knowledge goes, are familiar with the operation, and neither of them is connected with a hospital.

The State is full of general hospitals. All doing good work, and manned by capable men, but in none of them so far as the writer knows, is this operation, which is capable of saving so many lives done. And, there are no patients discharged from any of the various T. B. sanatoria that live so far from any of the hospitals that they cannot reach them easily, and have the operation done at regular intervals at little cost of time or trouble. It is better and safer that it should be done in a hospital or by some physician who has access to a fluoroscope, as by this means alone (except of course by the X-ray plate which is necessary) can the progress of the lung be watched.

This is necessary because by this means alone can one discover if a patient has a movable mediastinum, which will allow its contents pushed to the opposite side, thus compressing both lungs and displacing the heart. Again

\*Read before the Seaboard Medical Society of Virginia and North Carolina at its 25th annual meeting at Elizabeth City, N. C., December 7th, 1920.

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it shows how compression is going on and whether adhesions are such as to justify the continuing of the operation.

As to selecting the cases for operation, I do not think this should be undertaken except by an expert; as it simply means the destruction of one lung, and since it is obviously a grave question should be decided on by the specialist; but once the operation is begun and successfully done, there is no reason why it should not be continued by any intelligent physician after he has once learned the technic.

At the post graduate school for the study of tuberculosis conducted at the State Sanatorium, this operation can be studied and learned by any physician in the State who wishes to take advantage of it. Recently the staff at the Sanatorium has put on a move by which the pneumothorax patients discharged from the Sanatorium can be cared for at home. The family physician provides himself with the apparatus for doing the pneumothorax, and the Sanatorium sends the man who demonstrates to him the operation. We now have one patient in the town of Greenville who is doing well under her physician's care, the operation having been demonstrated to him in this way.

### CHECKING UP THE DIABETIC.\*

W. W. Silvester, M.D., Norfolk, Va.

In the medical profession the paramount aim is to prevent and cure disease. Unfortunately, this is rarely possible and the chief occupation of the doctor is relief of suffering and the attempt to modify the cause of the disease. It is to be regretted that diabetes is a condition which in the average instance has been present in an individual sometime before they appear for treatment. This is due chiefly to its insidious onset and mild initial symptoms, so the most the doctor can do is to make the best of a damaged condition. The slow onset is not a constant rule by any means.

I believe many cases that have been regarded as acute in the onset are not primarily acute but in reality an acute

exacerbation of a chronic process. This may be due either to an over indulgence in food or impairment of metabolism due to involvement of some other part of the body, either mental or physical.

Fortunately if the doctor understands the source of danger and recognizes the signs which indicate danger, he can do a great deal for his patient. The question of understanding the significance of signs is a matter of the greatest importance. A diabetic in some instances can relax at times and still come back, but there will come a time when the over indulgence will be fatal. It is essential that we realize that every patient is a new patient. In every type condition there are various grades of the condition and nowhere in the study of medicine is this fact brought more forcibly before one's mind than in the metabolic disturbances. Probably more forcibly in metabolic disturbances because we deal in figures to a greater extent than other conditions.

Joslin makes the following statement with which I heartily agree: "A diabetic patient at the beginning of treatment should be made to understand that he is taking a course in diabetes. For successful graduation in the course he should demonstrate his ability.

- "1. To test the urine for sugar.
  2. To serve himself with approximate accuracy without scales, 75 grams of a 5 per cent vegetable.
  - "3. To record a summary of his diet for the previous day.
  - "4. To explain the quantity of carbohydrate which it contains.
  - "5. To state his diet on his weekly fast day.
  - "6. To describe what he is to do if sugar comes in the urine.
  - "7. To describe what he is to do if he has reason to believe that he is threatened with acid poisoning.
  - "8. To know what to eat while traveling if his usual diet is not available.
- "The above I try to teach my diabetic cases. In the average instance it is more of an incentive to adhere to what had been told them. If necessary I lend the patient a pair of scales until they have learned approximate weights."

The ideal desired in a diabetic is to so arrange their diet and life as to maintain their nitrogen equilibrium, blood sugar normal, free from acidosis and furnish the patient with enough food to

\*Read at twenty-fifth annual session of Seaboard Medical Association, Elizabeth City, N. C., December 9, 1920.

make him mentally and physically efficient. It is a painstaking procedure on the part of the patient and doctor and requires a whole hearted co-operation. Every diabetic is individual. You may control a very mild case by the most simple advice, such as a little rest (absolute) in their daily life. On the other hand a severe diabetic may have reached the point where every known available form of treatment will not improve their condition. To accurately check a diabetics condition determination of blood sugar and plasma carbon dioxide tension are essential.

A diabetic should never feel that they have been educated to the point where they can do without the services of a doctor.

Any diabetic in the beginning should be treated as a case of baby feeding. Their tolerance for fat protein or carbohydrates is involved. It may be one or all and just where the trouble exists has to be established. Rest in bed while tolerance is being established is essential. After getting up tolerance may improve.

To consider diet alone of importance would be a great error. Mental relaxation and physical exercise should be promoted. If we are to bring about a decrease of diabetes in a community it will be with such measures. Every agency which promotes health and physical development tends to prevent an outbreak of the diabetic tendency.

**REMEMBER—"IT IS EASIER TO KEEP WELL THAN TO GET WELL."**

A valuable set of diet lists used in checking up the diabetic have been devised by the medical staff of the Hospital of the University of Pennsylvania and are given below.

**Classification of Diabetes Mellitus.**

Unless there is clearly a temporary glycosuria only, the presence of sugar in the urine should, for practical purposes, be considered as establishing a diagnosis of Diabetes Mellitus.

A rough working classification of "types" of the disease is useful as a guide to treatment. It must, however, be remembered that no fixed classification can be laid down. Experience in a given case may require reversal of opinion as to mildness of severity.

1. Mild Diabetes—Moderate, though in the same cases severe glycosuria easily removed by moderate restriction

of diet; absence of acidosis; no marked loss of weight nor great weakness; patients more often middle aged or older, stout, and of "gouty" type than young and slight or emaciated. Mild cases long continued and neglected are apt to become refractory and severe.

2. Moderately Severe Diabetes—Glycosuria is less readily removed than in (1), though, as a rule, disappearing on a carbohydrate free diet moderately restricted as to fat and protein; tendency to mild acidosis; loss of weight and strength.

3. Severe Diabetes—Glycosuria usually marked; persists on protein—fat diet; tendency to acidosis more or less decided; considerable loss of weight and strength; "cardinal symptoms" of diabetes pronounced.

**Preliminary Diets for Diabetics.**

1. When admitted patients are placed for 24 hours upon a general diet to obtain an indication of their reaction to this. In case of patients in a serious condition, or of such as have had satisfactory outside study, this general diet for 24 hours is omitted.

2. After the first 24 hours the patient is placed on a "preliminary diet"—1, 2, or 3, according to the gravity of the case:

**Preliminary Diabetic Diet No. 1.**

**Breakfast:**

	P.	F.	C.
Two eggs -----	12.	12.	—
Cream (20%) 15 c.c.-----	0.5	3.	0.5
Coffee—150 c.c. -----	—	—	—

**Dinner:**

Broth—150 c.c. -----	3.5	—	—
Lean meat—120 Gms.---	32.	12.	—
Cream—15 c.c. -----	0.5	3.	0.5
Tea—150 c.c. -----	—	—	—
5% vegetables—150 gms. ---	—	—	4.5

**Supper:**

One egg -----	6.	6.	—
Lean meat—90 gms.---	24.	9.	—
Coffee—150 c.c. -----	—	—	—
Vegetables 5%, 150 gms. ---	—	—	4.5
Cheese—30 gms. or bacon 25 gms.-----	8.	11.	—

---

Total gms. -----	87.5	56.	10.0
	4	9	4

---

Calories -----	350.0	504.	40.0
Total calories—894.			

**Preliminary Diabetic Diet No. 2.**

For patients with moderately severe diabetes and slight evidence of acidosis.

**Breakfast:**

	P.	F.	C.
Two eggs -----	12.	12.	—
Coffee—150 c.c. -----	—	—	—
Bran biscuit -----	—	—	—

**Dinner:**

Broth—150 c.c. -----	3.5	—	—
Lean meat—90 gms. ....	24.0	9.	—
Tea—150 c.c. -----	—	—	—
5% vegetables, 150 gms. —	—	—	4.5

**Supper:**

One egg -----	6.	6.	—
Coffee—150 c.c. -----	—	—	—
Bran biscuit -----	—	—	—
Cheese—30 gms. or bacon—25 gms. -----	8.	11.	—

Total gms. -----	53.5	38.	4.5
	4	9	4

Calories -----	214.0	34.2	18.0
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Total calories—574

**Preliminary Diabetic Diet No. 3.**

For patients with severe diabetes and seriously threatened acidosis. (Omit yolk of egg and meat and increase the COH if the acidosis increases.)

**Breakfast:**

	P.	F.	C.
Oatmeal (cooked) — 90 gms. -----	2.5	0.5	11.0
One egg -----	6.0	6.0	—
One orange -----	—	—	10.0
White bread—30 gms. ....	3.0	—	18.0
Coffee, 150 c.c. -----	—	—	—

**Dinner:**

Broth—150 c.c. -----	3.5	—	—
Potatoes—60 gms. ....	1.5	—	12.0
5% vegetables—150 gms. —	—	—	4.5
Tea—150 c.c. -----	3.0	—	18.0

**Supper:**

One egg -----	6.0	6.0	—
Lean meat—90 gms. ....	24.0	9.0	—
Boiled rice—30 gms. ....	1.0	—	6.0
White bread—30 gms. ....	3.0	—	18.0

Total gms. -----	53.5	21.5	97.5
	4	9	4

Calories -----	214.0	193.5	390.0
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Total Calories—797.5.

**Preliminary Diabetic Diet No. 4.**

Diet for "fast" days and previous to "oatmeal diet."

**Breakfast:**

Coffee—200 c.c. -----	—	—	—
5% vegetables — 150 gms. -----	—	—	4.5
2 bran biscuits -----	—	—	—

**Dinner:**

Broth—150 c.c. -----	3.5	—	—
Tea—150 c.c. -----	—	—	—
5% vegetables — 150 gms. -----	—	—	4.5
2 bran biscuits -----	—	—	—

**Supper:**

Broth—150 c.c. -----	3.5	—	—
Tea—150 c.c. -----	—	—	—
2 bran biscuits -----	—	—	—

Totals gms. -----	7.0	0.0	9.0
	4	9	4

Calories -----	28.0	0.0	36.0
----------------	------	-----	------

Total Calories—64.

Note—Additional feedings of broth or 5% vegetables may be given between meals and at bed time. Whiskey may be added when specially prescribed.

**1. Protein Foods Free of Carbohydrate and Fat.**

	%P.	%F.
Gelatin -----	99.0	—
Soups—Broth -----	2.0	—
Vegetable -----	2.9	—
Egg whites -----	12.0	—

**2. Protein Foods Free of Carbohydrates.**

Low in fat (below 10%).

	%P.	%F.
Dried beef -----	40.0	6.0
Beef tongue -----	20.0	9.0
Sweetbread -----	20.0	9.5
Lean veal -----	20.0	6.0
Chicken—broilers -----	22.0	3.0
Fish—various fresh -----	18.0	1-2.0
Shad, halibut and mackerel ..	19.0	5-9.0
High in fat (over 10%).		
Lean beef—cooked -----	25.0	12.0
Beef -----	24.0	25.0
Mutton -----	25.0	23.0
Ham, lean pork, pork chops ..	20.0	20.0
Bacon -----	10.0	60.0
Chicken -----	20.0	16.0
Herring -----	37.0	16.0
Sardines -----	23.0	20.0
Two eggs -----	12.0	12.0
Salmon -----	22.0	13.0

**3. Fats Free of Protein and Carbohydrates.**

Butter -----	—	85.0
Olive oil -----	—	100.0

**4. Carbohydrate—Containing Foods, Grouped by Percentage of Carbohydrate.**

- (1) Vegetables.
- (2) Fruits.

- (3) Nuts.
- (4) Miscellaneous.
- (5) Milk foods.

**5% Group.**

%P. %F. %COH.

(1) Lettuce, cucumbers, spinach, rhubarb, sauerkraut, beetgreens, dandelions, greens, Swiss chard, celery, tomatoes, Brussels sprouts, watercress, sea kale, okra, cauliflower, egg plant, cabbage, radishes, leeks, string beans	1-2.0	—	—
(2) Ripe olives	—	25.0	—
Grape fruit	—	—	—
(3) Butternuts	28.0	60.0	—
Pignolias	34.0	50.0	—
(4) Pickles—unsweetened and unspiced	—	—	—
Clams	9.0	—	—
Oysters	6.0	—	—
Scallops	15.0	—	—
Liver	20.0	5.0	—
Shad roe	20.0	4.0	—
Soups: tomato and chicken gumbo			
	2-4.0	—	—
(5) Milk	3.0	3.0	5.0
Cream—20%	3.0	20.0	3.0
Cream—40%	3.0	40.0	3.0
Buttermilk	3.0	0.5	4.8
Cheese cottage	21.0	1.0	4.0
Cheese, American, Swiss and cream			
	28.0	38.0	3.0

**10% Group.**

(1) Pumpkin, turnips, kohlrabi, squash, beets, carrots, mushrooms, boiled oatmeal, onions	1-2.0	—	—
(2) Lemons, oranges, cranberries, strawberries, blackberries, gooseberries, peaches, pineapple, watermelon, green olives	—	25.0	—
(3) Brazil nuts, black walnuts, hickory nuts, pecans, filberts	10.25	50-70.0	—

**15% Group.**

(1) Green peas	7.0	—	—
Artichokes	3.0	—	—
Parsnips	2.0	—	—
Canned lima beans	4.0	—	—
(2) Apples, pears, apricots, blueberries, currants, raspberries, huckleberries	—	—	—
(3) Almonds, English walnuts, beechnuts, pistachios	20.0	55.0	—

**20% Group.**

(1) Potatoes	—	—	—
Fresh lima beans	7.0	—	—

Baked beans	7.0	—	—
Green corn	—	—	—
Boiled rice	—	—	—
Boiled macaroni	—	—	—
Cooked hominy	—	—	—
(2) Plums, bananas, prunes	—	—	—
(3) Peanuts	26.0	39.0	—

**High Carbohydrate Group.**

White bread	10.0	—	55-60
Whole wheat bread	10.0	—	50
Crackers, various	10.0	—	70

**Bran Biscuit.**

Bran	60	gms.
Salt	¼	teaspoonful
Agar-agar, powdered	6	gms.
Cold water	100	c.c. (½ glass)

Tie the bran in a cheese cloth and wash under cold water tap until water is clear. Heat agar-agar in the water (100 c.c.) to the point of boiling. Add to washed bran, the salt and agar-agar solution (hot). Mold into 8 cakes. Place in pan on oiled paper, then when firm and cool bake in moderate oven 30-40 minutes.

(a) Cases of mild diabetes with no tendency to acidosis are placed on Diet No. 1. If glycosuria persists after two days, change to Diet No. 2. Fasting treatment may be necessary later, if sugar still persists.

(b) Moderately severe diabetes with slight evidences of acidosis are placed on Diet No. 2.

(c) Severe diabetics with seriously threatened acidosis are placed on Diet No. 3.

3. In mild cases, if glycosuria disappears and acidosis is not in evidence, the preliminary diet (No. 1 or No. 2) may be extended by gradual increase of fat and carbohydrates, as the protein in Diet No. 1 and even in Diet No. 2 is inadequate; later a general increase will be proper.

4. In moderately severe diabetics who have become sugar-free and without acidosis on Diet No. 2, increase the fats and the carbohydrates, but more cautiously (e. g. 5 gms. of fat and 10 gms. of COH per day, if tolerated) until 90 gms. of fat are reached. At the same time increase the protein to 70 gms. per day (about 2 gms. per day increase). The diet will now be about 70 gms. protein, 80 gms. fat and 85 gms. COH. If still sugar-free, gradually increase COH according to tolerance.

N. B.—A recurrence of sugar at any stage of the gradually increasing diet

demands either slowing of the advance, or a return to a lower diet or a "fast day."

5. In moderately severe diabetics rendered sugar free on Diet No. 2, but still having evidence of acidosis, keep the fat at the same amount, and very gradually increase the COH (protein is sufficient). Later if acidosis disappears increase the fats and proteins cautiously.

6. Moderately severe diabetics not becoming sugar free on Diet No. 2 should be changed to a fasting basis—the fats and protein being withdrawn in two or three days. Thereafter proceed as in paragraph 7, section 2 (below).

7. (1) In severe diabetics with definite acidosis threatening to become marked, after a brief use (2 or 3 days) of Diet No. 3, begin fasting treatment by cutting out the fat and protein first, and then reducing the COH in 3 or 4 days until the patient is on a full fasting basis.

(2) When sugar free (expected in 2-4 days), begin with protein foods (increasing gradually to reach 50 gms. per day in 3 or 4 days), and as little fat as such protein feeding entails (skimmed broth, white of eggs and fish are best suited). Then add fats and COH very gradually (5 gms. of fat and 10 gms. of COH daily) for a week.

(3) The subsequent increase in total calories and in fat and carbohydrates is the most difficult part of the treatment. More rapid increase of COH may be possible by prolonged restriction of the fats; but in other cases proportionate increase of fats and COH may be possible. Proteins should be gradually raised to 70 or 80 gms. per day, after the fats and COH have been restored to the diet in moderate amounts.

(4) A "fast day" each week should interrupt the gradually increasing diet and a "fasting period" any considerable increase of sugar.

N. B.—In the above and in the outlined diets the amounts are adapted (roughly) to individuals weighing 50 kilos. For less or greater weights make proportionate alterations.

## \*FOCI OF INFECTION.

By Frederick C. Rinker, B.A., M.D.  
Visiting Physician Sarah Leigh Hospital,  
Norfolk, Va.

Clinical and laboratory research during the past few years has done much to establish the principles of foci of infection and the trend of modern day medicine is more and more working towards the goal of determination of the underlying causes of disease.

By foci of infection we mean circumscribed areas in the human organism in which bacteria are localized and multiply, giving off toxins and serving to furnish microorganisms for an oncoming Bacteraemia and later a systemic or generalized infection.

A focus of infection may be either acute or chronic or it may be primary or secondary. It may exist for some time with very little local or systemic evidences.

Time does not permit, and it is not my desire in this paper to attempt a consideration of the entire question of focalized infections, but I merely wish to emphasize some of the points already established on the more common local sites of local infectious processes which may sooner or later produce systemic or generalized disease in the human body.

It is an accepted fact that pathogenic bacteria, in the majority of instances, enter the body through the open avenues—nose, throat, mouth, urethra, rectum, vagina—and through abrasions on the surface of the body. Thus primary foci of infection are usually found in tissues communicating mucous membrane and skin surfaces.

Let us now consider these sites of infectious processes in sequence to their frequency.

**1. The Upper Respiratory Tract—**The incidence of bacterial invasion through the mucous membrane surfaces of the nose, naso-pharynx and nasal accessory sinuses has been established as being high by Evans, Billings, Rosenow, LeCount and others.

The common nose colds known as Coryza, Grippe, Rhinitis, etc., are frequent occurrences and readily recovered

\*Read before Seaboard Medical Society, Elizabeth City, N. C., 1920.

from in the majority of instances. But unfortunately the bacteria causing these colds too frequently invade the cells of the accessory sinuses. Here the anatomy is such as to promote poor drainage and there often results a localized, persistent infection first acute and later chronic. This infectious process is at all times a source of grave danger to the general system. Infections in these sinuses do not necessarily form pus, but may result in catarrhal, non-suppurative, granulating pathology. On the other hand suppuration may occur. The latter is more easily diagnosed. The former does not throw a shadow by transillumination but frequently will show up on the X-ray plate when properly interpreted. Thus an infectious process localized in the nasal sinuses in many instances can only be diagnosed by a process of elimination. The adenoid tissue, particularly in youth, is also a frequent site of local infections in the upper respiratory tract.

**2. The Tonsil**—The invasion of the tonsils by bacteria is common in all ages but particularly during youth. All of us recognize the dangers of acute rheumatic fever, acute valvular heart disease and many other secondary pathological processes resulting from acute tonsillitis. These conditions may become chronic and have as their underlying cause chronic infections harbored in tonsillar crypts. The anatomical structure of the tonsil is such that invasion of bacteria into the crypts may be retained and form small abscesses or foci of infection. Thus many tonsils appearing innocent on casual examination may, on more careful and prolonged consideration, be found to be a "load of dynamite." The stumps, too frequently left by the operator, and the lingual tonsil, may be the seat of disease which would result in just as serious complications as though the entire tonsil had been left in the throat. Therefore from a clinical point of view let me urge that the entire tonsil be removed either intact or in piece meal whenever the operation is performed.

**3. Oral Infections**—The presence of dental abscesses and of pyorrhoea alveolaris as the causes of systemic disease is being impressed upon us with increased gravity from year to year. This type of focal infections is obviously

more prevalent among the adults than the young. Infections of this nature are frequently found in patients who exhibit a well kept set of teeth and who state that their teeth have never given them trouble. Thus in order to eliminate the mouth as a possible underlying factor in disease it is necessary that X-ray pictures be made of the teeth, and important that these films be properly interpreted.

**4. Aural Infections**—The middle ear may become infected through direct extension from the throat through the Eustachian tube or by blood metastasis. This infection might become chronic, therefore the middle ear and mastoid should be eliminated in an attempt to run down a focus of infection.

**5. The Genito-Urinary Tract**—Infectious processes may occur at any point along the male and female genito-urinary tract, either by direct bacterial invasion or by hematogenous metastasis. These infections may be syphilitic or gonorrhoeal, or they may be caused by any of the other pathogenic bacteria.

**6. Skin Infections**—While the incidence of secondary manifestations, resulting from skin infections, is low, the possibility should be remembered. Billings reports two cases of chronic arthritis resulting from persistent infections about the finger nails. The author has seen one such case in whom recovery from the joint condition followed very rapidly after the fingers were entirely cured.

**7. The Gastro Intestinal Tract**—The gall-bladder, appendix and the intestines are frequently found to harbor focalized infections. These infections are, in the opinion of the author, secondary to some primary focus through lymphogenous metastasis but they are mentioned here because of their frequency in the cause of disease. In many instances when searching for the cause of disease is found in either the gall bladder, the appendix, or in the intestines as ulcerative colitis.

In closing I wish to say, first, that I do not want to be interpreted as advocating the wholesale slaughter of tonsils, teeth, gall bladder or appendix, or the promiscuous operation upon nasal conditions unnecessarily. But I do advocate a thorough search for foci of infection in all obscure cases and when a focus is found that it be removed thoroughly and promptly.

2. It is recommend that careful study be made in search for some local infectious process in cases of so-called indigestion; chronic and acute nervous diseases; chronic skin diseases and in those cases complaining of general malaise with tachycardia, dyspnoea and indefinite body pains, particularly when there is no demonstrable pathology in the heart, gastro-intestinal tract or lungs.

### ECLAMPSIA\*

George E. Newby, M. D., Hertford, N. C.

Eclampsia, is a subject in medicine, which has challenged medical minds, since medicine became a branch of human knowledge. It creates a problem always, and should attract the attention of medical men whenever they meet together. It is for this reason that I am not going to apologize for referring to this condition, but trust that it will meet with your approval, to the end, that it will be freely discussed.

Presently I am going to refer to this disease from the angle of the man in country work, separated as he is, often, from civilization—so to speak, and assistance, where he has to depend on his own judgment, and quick action. Most of the papers read on eclampsia are by men associated with well appointed hospitals, where they can command every facility, and all the assistance required. This distinction, however, does not imply a difference in treatment. I would like to emphasize the frequency of these cases already in the throes of this terrific malady, before we are called at all, which puts us on the defensive at once without either the proper equipment, or help.

Definition—Eclampsia comes from two Greek words meaning-out-to flash. To flash out or to shine out. Dorland defines this diseases as convulsions of peripheral origin.

Historical — Hippocrates mentioned convulsions in pregnant women, and knew they most often occurred in women who suffered headache, and a tendency to sleep.

The word eclampsia was first introduced in medicine in 1760 by a French

writer, and in 1766 by a German.

Etiology—The cause of this disease is obscure. Many theories have been advanced. Now medicine regards it as one of the three toxemias of pregnancy, and this is about as far as it dares to discuss it. This toxemia results from the accumulation of poisons in the blood that are imperfectly eliminated. The kidney of pregnancy is probably the first gradation which eventuates in this climax.

The kidney of pregnancy is particularly emphasized by DeLee of Chicago. He takes the position that it is the first step in the evolution of this disease, which would seem to imply that the kidney is responsible for the development of this condition, when many writers believe that the kidney is secondary.

The toxins may be fetal or maternal, in origin. We all know that during the process of gestation that the metabolic activities of the mother are very much increased, and demand a double function of her eliminative organs. To stress the kidney in this condition in my experience is a mistake; for it has been my observation that frequently the urinalysis will show a very large percentage of albumin—even solidify on the application of heat, and still the patient does not manifest in any way the probability of eclampsia. On the other hand I have seen very small percentages of albumin—amounting to only a faint trace, particularly if this is in the presence of a blood pressure of 160 M. M. Hg., should always put us on our guard.

Pathology has been investigated enough by this class of workers to establish lesions in the liver, kidney, brain and other organs. The microscope reveals a hemorrhagic tendency. The functional structure of the organs is impaired. Where these cases have come to the autopsy table, the liver is always found involved, and simulates acute yellow atrophy. It is for this reason that chloroform is advised against as an anesthetic in these cases, because it is known that this chemical produces the condition referred to. The thyroid gland has been incriminated in the causation of this affection. Writers are agreed on a loss of balance of the endocrine organs, believing that a correlation—perfectly attained—of the organs or internal secretions is essential to the correct progress of gestation. The decrease of nitrogen-urea is always of

\*Read before the Seaboard Medical Association, Elizabeth City, N. C., December 7-8-9, 1920.

importance. Williams of Hopkins has made it a rule—resulting from recent studies—to induce labor if the ammonia co-efficient reaches 10% and the blood pressure reaches 160 MM. Hg. As early as 1894 the idea of fetal or placental poisoning was entertained. These toxins do not pass through the liver, and so are not oxidized. In addition to the liver, kidney and brain already mentioned, autopsy findings are located in the lungs, circulatory system, and even the fetus itself. No special changes are found in the blood.

#### *Clinical Course:*

This divides itself into—

First: The Pre-eclamptic stage.

Second: The attack.

In the pre-eclamptic stage the patient usually complains of headache, gastric distress, sometimes very acute epigastric pain, which may be mistaken for acute indigestion, scotomata, and there may be slight edema of the eye lids, and ankles. Swelling of the legs within itself as term approaches carries very little significance. I have seen this condition particularly noticeable, and still the patient did well.

The two most important things to do are, first, to watch the output of urine for 24 hours, noting especially the urea, and albumin, and secondly, the blood pressure. The percentage of albumin should not concern us unless associated with other phenomena—by this I mean that a 2%—4% albumin does not mean that the patient will develop eclampsia. A trace or faint trace in the presence of a blood pressure of 160 MM. Hg. carries more significance. Right here I wish to laud the North Carolina State Board of Health for the step it has taken in pre-natal literature for the education of expectant mothers. It is one of the big things that this Board has done. It is a mistake for doctors to be rebellious to this because they think that it is an encroachment on their professional skill. It is designed to reach all classes, but especially that class of women who do not concern themselves as they should in this borderline pathology. I believe that the Calorimeter is destined to play an important function in the care of pregnant women. If this Phthalein test is valuable in the progress, and prognosis of renal insufficiency, why not apply this to the kidney of pregnancy. So far as my informa-

tion goes, this is not done now. Armed with a urinary test set, Sphygmomanometer, Calorimeter and doing your duty in the care of these patients will I believe very materially lessen the incidence of Eclampsia cases. Another phenomenon I would like to refer to is dyspnoea; this should be considered as an explanation of renal inefficiency, with a beginning heart lagging.

#### *The Attack.*

This is usually announced by the patient falling in coma. The pupils dilate, the eyes are turned, and the head also: the patient usually opens her mouth, and the jaw is pulled to one side. There may be a cry. The whole body becomes rigid; features are distorted: arms flexed; hands clenched; feet inverted; toes flexed; and the whole body finally passes into a clonic spasm, which constitutes the first stage. Then the eye lids open and close, the jaws snap, twitchings begin in the face, usually one arm, and then one leg, and then the whole body. This is the second stage, or clonic spasm. It is quite possible for the patient to do herself an injury during this stage by being thrown from the bed in this muscular contraction, causing bruises, lacerations, and even fracture of the skull. The tongue is protruded, and frequently injured by the teeth if not protected. Bloody froth makes its appearance in the mouth, and respiration is locked. This locking of the respiration causes cyanosis of the face. The blood pressure is usually high, indicated by a hard pulse, which weakens as the convulsions continue. The convulsions usually last from a few seconds to about two minutes, and range from 5 to 15. Oldhausen reports two cases in which 81—104 convulsions occurred in two patients respectively. Both died. Relaxation gradually occurs, and the patient complains of headache, and frequently, muscular soreness. Between the attacks the patient may be quiet or restless, and this restlessness may amount to a mild delirium. Eclampsia usually occurs as late as the 7th to the 8th month during the progress of gestation, during labor and post partum. During labor gives the most favorable prognosis. Post partum convulsions are of interest because of their rarity, and the favorable prognosis that it carries. Leipman's theory is that if the convulsions begin after delivery, or sometime after the death of the fetus:

that a poison that has been retained has been liberated and unites with the brain cells. DeLee stresses the marked albuminuria, and tube casts, in these cases. He claims that if these pathologic findings are absent you are compelled to make a diagnosis of Apoplexy, Epilepsy, meningeal disease or reflex irritation. After all, this manifests itself because of the destructive effect of poisons on the kidney structure, and in no way indicates that the kidney is primarily at fault.

**Diagnosis**—The diagnosis is to be differentiated from convulsions occurring as terminal events in pregnancy from other causes. The kidney is an index to this. If urinalysis fails to reveal casts, and albumin, you are bound to exclude this condition—in as much as present day medical teaching pre-supposes these pathological elements. The difficulty of establishing a diagnosis of eclampsia lies in our unfamiliarity with the history, because these patients neglect to place themselves under our care early enough. The conditions that are most apt to be confused with eclampsia are epilepsy, and hysteria major, and the convulsions of acute intercurrent disease like meningitis. Those ought readily to be distinguished from eclampsia however by reason of the absence of toxic symptoms, except in the status of these affections where the stupor, convulsions, and high temperature supervene, although the history of the case should clarify this.

Given a case of pregnancy with nephritis it is quite possible for uremic convulsions to develop. Uremia is distinguished from eclampsia by the absence of fever, and a history of Bright's Disease. Apoplexy rarely occurs in pregnancy: there are no prodromata, and coma quickly follows.

Cases of eclampsia are on record without convulsions. In these cases you have a history of the kidney of pregnancy, pre-eclamptic state, edema, retinitis, and coma.

**Prognosis**—Edgar puts the maternal mortality at 35% and the fetal of 50%. The danger of a seizure is forecasted by toxemia, albuminuria, diminution in the quantity of the urine for twenty-four hours, and a rising blood pressure. The gravity of the prognosis increases in proportion to the early stage of pregnancy at which the convulsion occur.

The danger comes more pronounced, in proportion to the increase of albumin, decrease in water excreted in 24 hours, and a loss of balance of the nitrogen output. The prognosis is more favorable when—

1—The attacks are far apart, and not severe.

2—The child perishes.

3—The patient has a conscious interval between the attacks.

4—The quantity of albumin is small.

5—Decrease of temperature.

6—The seizures occur in advanced labor or the puerperium.

The causes of death are as follows:

1—Exhaustion.

2—Cerebral apoplexy.

3—Asphyxia.

4—Edema of the lungs or brain.

5—Cardiac paralysis.

**Note**—The quantity of albumin referred to by text books is not substantiated by actual experience—that is—a danger signal. I have seen eclampsia in more cases where the percentage of albumin was quite small. Here the microscope is the determining factor.

Treatment divides itself into prophylaxis, and treatment of the attack.

Prophylaxis comprises a close surveillance of the patient from conception to the end of term. These physical surveys, and urinalyses should be practiced every three weeks for the first semester, and then every week until confined. "Every pregnant woman should be considered a possible candidate for eclampsia, and our efforts should be directed to that end." The family and previous histories in the cases are very important, bringing out any nervous instability of the parents, grandparents or collateral branch of the family, and especially eclampsia in preceding pregnancies. Three factors demand immediate attention.

1—A diminished urine

2—Albumin, especially if in small percentage.

3—A rising blood pressure.

This consists in:

1—Put patient to bed.

2—Allow nothing but water for three days.

4—Allow milk after the condition improves.

5—Allow starches and the proteid vegetables with the vegetable oils and butter if the condition continues to improve.

6—If improvement is progressive one egg a day may be allowed.

Later fish, chicken, turkey is added, but never a free meat diet. Spices, tea, coffee, alcohol, beef, veal, mutton and pork are strictly inderticted. Water is usually recommended unless the heart is already burdened. Buttermilk and kumyss is recommended. The salt free diet in these cases has been disappointing. Increase excretion of the bowels, kidneys, skin and lungs. Salines and vegetable cathartics are useful. Encourage the free use of hot water in large amounts. The use of diuretics except water is to be discouraged. Basham's mixture, diuretin, and the vegetable diuretics has not in my experience been effective. Normal salt solution is useful in starting the skin and kidneys to activity and may be given by hypodermoclysis, unless it is necessary to resort to more energetic measures for the relief of the attack, then it would be wise to practice venesection and administer the salt solution intravenously.

#### The attack:

When the first convulsion occurs the ideal thing to do would be to immediately transfer the patient to a well appointed hospital, but it is right here that I want to emphasize the impracticability of this, because women in the country have eclampsia as much or more than the women of cities.

The two positions held may be labeled as conservative and radical. Between these is a middle ground. An exponent of the conservative method is Stragonoff. He advises putting the patient to bed, protect her from injury, light and noise and give narcotics—morphine, chloral—stimulate the emunctories, bleed, and wait the natural termination of pregnancy and labor.

An exponent of the radical method is Duhrssen. His dictum is after the first convulsion, put the patient into a deep sleep and deliver at once. The accoucheurs who occupy the middle ground use the medical treatment more or less and hasten labor only if the patient's condition is growing worse.

Carl Baum, Duhrssen, Oldhausen, Seitz and Reuben Peterson have accumulated evidence enough to prove that the lowest mortality is in those series of cases where the patient is delivered under deep narcosis as soon as possible after the first convulsion.

Peterson collected 615 cases of early delivery (as soon as possible after the first convulsion), finds a mortality of 15.9% as compared with 28.9% in cases treated by the conservative plan.

#### Methods of choice:

- 1—Period of pregnancy.
- 2—Environment of patient.
- 3—State of cervix.
- 4—Skill of the operator.
- 5—Complications, contracted pelvis, placenta previa, etc.

Before the seventh month the fetal mortality is 100% and therefore it is necessary to procure only enough dilatation of the cervix to do craniotomy and extraction.

In the private home, without skilled assistance, it is best to resort to less active measures—puncture of the membranes—the use of dilating bags and manual dilatation. After the cervix is fully dilated and the head engaged, delivery is very promptly accomplished by forceps. If the head is above the brim podalic version and extraction. In the presence of an elongated cervix and a rigid external os the method of choice is Cesarean section. This applies to the hospital, however, and presently I am going to report a case, which would have been ideal for this method, but impractical because of environment.

Manual dilatation requires from one to three hours and not infrequently mutilates the parts so as to invite infection. Cesarean section is preferable, or even a bilateral incision as advised by Berkley and Bonny in their work on Obstetric Emergencies.

#### Adjuvant treatment:

1—Protect the patient from injury, especially the tongue, which can be done very effectively by a clothes pin wrapped by a handkerchief.

2—Procure quietude, keep room free from noises and company.

3—Mop throat to prevent aspiration pneumonia.

#### Narcotics:

1—Morphine introduced by Veit.

2—Chloral introduced by Winkel.

3—Bromide.

4—Veratrum viridi is used with indifferent success.

5—Venesection is a procedure that should be particularly emphasized.

DeLee does not approve of morphine because it increases coma and frequently causes the death of the baby.

Chloroform is to be condemned for the reason already mentioned.

Report of three cases out of a series of seven as illustrative of the methods employed by me.

Case 1. Time, May 15, 1915.

Mrs. W. F., age 20, primipara. Had seven convulsions before reaching her. First time patient seen by me. Consultation. One-half grain morphine given subcutaneously. Vaginal examination disclosed an elongated cervix, with a very rigid os. Manual dilatation was practiced one hour without results. The anterior lip of the cervix was seized with a pair of volsella forceps and the uterus brought into view. A bilateral incision two inches long was made. The head was engaged. Applied short forceps and delivered. Both incisions were closed with chromic catgut. Temperature 101 the third day. Patient put on three grain doses of quinine at intervals of three hours. Breast was given proper attention. Convalescence was prompt and patient out of bed the tenth day. Fetus dead before delivery.

Case 2. Time, March, 1919.

Mrs. S. L., age 28, two para. Two convulsions before reaching her. Wednesday night. Not in labor. Blood pressure 180 MM. Hg. Gave one-half grain morphine subcutaneously. Venesected her until the pressure fell to 140. When patient reacted gave her a saline and gave her 10 grains Chloral every three hours. This patient went into labor Saturday night about 76 hours from the time I first saw her. Delivered herself. Convalescence uninterrupted.

Case 3. Time, February, 1917.

Mrs. J. L., age 31, two para. History of this case was eclampsia in the preceding labor.

Delivered her 11 P. M. Tuesday night. Wednesday 3 P. M., developed eclampsia, 16 hours after delivery. Had three convulsions before I reached her. I immediately gave her one-half grain morphine subcutaneously. Venesected her till her pressure dropped to 120. Gave saline by mouth and small doses of chloral for a period of two weeks. Put this case on diuretics.

This patient has been delivered since without any untoward results.

## EPIDEMIC ENCEPHALITIS WITH REPORT OF TWO CASES.

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The epidemic of encephalitis in the United States appears but a part of a pandemic, for epidemics of like nature have been reported from different countries. The first case was reported from Vienna by Von Economo in 1917, and in the same year cases were reported from Australia. In 1918 it was reported from France, England, Africa and other countries. Something less than two hundred cases have been reported from our own country but from newspaper reports of sleeping sickness many other cases must have escaped reporting. Of the first 100 cases reported in this country 31 died. Apparently the later cases have been less severe or else many less pronounced cases are being recognized since the later cases have a much diminished mortality. Barker and his associates report 8 cases without a death.

The pathology of epidemic encephalitis is pretty well understood. It consists of an inflammatory process scattered throughout the nervous system which shows itself chiefly as perivascular infiltration and punctate hemorrhages. The chief pathological changes are summed up by Dunn and Heagey as: (1) meningeal oedema and thickening; (2) softening and congestion of both gray and white matter of the brain and pituitary gland; (3) punctate hemorrhages in the mesencephalon, thalamus and basal ganglia; (4) thrombosis of small vessels; (5) perivascular infiltration of the small vessels of the brain stem; (6) oedema of the mesencephalic area. The brain stem is most susceptible and accounts for the great variety of symptoms.

Since any area of the nervous system or its covering may be involved with either increased, decreased or perverted function it is not strange that we should find a great variety of symptoms nor that a great many symptoms may be absent in any one case. The onset may be in almost any conceivable way. The most striking general symptom when present is lethargy that may show itself in any degree from dullness to absolute

\*Read before the staff of the Presbyterian Hospital December 16, 1920.

stupor. This symptom is present in about seventy-five per cent of the cases and is responsible for the lay term "sleeping sickness" and the term given by Von Economo of encephalitis lethargica. Usually the patients can be aroused and present a dazed, expressionless stare when awakened. Headache is usually present and may be very severe. In the first case reported below it was very intense even while the patient was in coma and she said when woke up that it seemed like there was a hammer beating on her head and she continued to talk about the headache for days after it was gone. Vertigo, tachycardia, vomiting and fever are other prominent symptoms. Fever is usually present for part of the course but not usually high. The focal symptoms are mostly motor; the most common being ptosis or ophthalmoplegia involving either the internal or external rectus. Monoplegias, hemiplegias, aphasias and contractures may be seen. Diplopia is a very common symptom and often the initial and rarely the only symptom. Meningeal symptoms are not common. The reflexes may be changed but are about as often decreased as increased. Three cases with polypnea are reported with a respiratory rate of 60. Peripheral pain may be present and be severe.

Laboratory examinations are of value chiefly in ruling out some other disease. The urin is practically normal. The blood shows a very slight leucocytosis with a normal differential. The spinal examination is most important and shows a clear fluid under normal or slightly increased pressure, increase in the cell count, positive globulin and negative Wasserman.

The exact cause of the disease is still unknown. That it is infectious in nature seems certain and that the cause is associated in some way with influenza seems likely.

In the treatment prolonged rest in bed, bland diet, protection from external stimuli, relief of headache and peripheral pains seem indicated. Lumber puncture has relieved the headache and dispelled the lethargy temporarily in some cases. In the two cases reported below lumber puncture gave temporary relief to irritability in one case and headache in the other. Complete recovery without residuals seems to be the rule in this country. Those that die do

so early in the disease. Facial nerve palsies last four or five months and asthenia lasts six months or longer.

The diagnosis rests largely on three things: A negative or atypical spinal fluid associated with lethargy and eye symptoms or with either of the latter alone. The presence of fever with either of the above symptoms is very suggestive in the presence of an epidemic.

Case 1. L. N. J. Young, married woman, 21 years old. Appendix removed 4 years ago. Has had trouble off and on ever since in the right lower abdomen. In March, 1920, had another operation for removal of a right cystic ovary and according to her surgeon, another, or the same, appendix. Patient was first seen August 12th with a discharging sinus following her operation in March. Operation following day and fistulous tract dissected out and piece silk-worm gut three-fourths inch long removed from below fascia. Wound drained slightly following operation and patient went home in two weeks. On the night of August 8th, less than a month from last operation, the patient had a severe headache and felt queer and asked her mother if she were going crazy. Next day seemed perfectly normal. That night she became stuporous, failed to respond when spoken to, did not recognize anyone, restless, turning in bed, moving at the sound of any noise and keeping one hand on her head and the other at the back of her neck. At the sound of the train whistle she became very restless and all her muscles became rigid. At this time her pupils were equal, reacted, tongue clean, neck a little stiff and seemed to give pain when flexed but could be flexed. Reflexes including the abdominal all increased. No Babinski, no Brudzinski, no ankle clonus, suggestive Kernig. B. P. 142-80, heart sounds good, pulse 84, temp. 99.2 September 11. Spinal puncture clear fluid, normal pressure, increased cell count. Unfortunately no Wasserman was done at this time. Leucocytes 10,100. Patient still unconscious, no localizing symptoms. Patient will take food and water in small quantities. September 17th became conscious for the first time in a week and remained conscious most of the day, that night became unconscious and remained so until Sept. 22nd, when she woke up complaining of a violent headache, in-

ability to hear out of left ear, pain behind left ear and diplopia. November 11 she got up into wheel chair. She has since shown steady improvement but she is still in wheel chair, December 16 complains of stiffness in muscles of neck and marked indigestion. This patient had not had influenza.

Case 2. L. W. Female, 18. Had bad attack influenza 1918 and again 1919. Had no other serious illness. May 15th had operation for right cystic ovary and acute appendix. Made good recovery and had no trouble until October 25th when she got up from the dinner table, complained of feeling cold and numb, fell on bed, lapsed into unconsciousness and stayed that way until following morning, when she complained of pain between the eyes and back of the neck. Was in bed for one week having lapsed into unconsciousness and complaining of diplopia. At one time complained of pain in right arm, abdomen and leg which lasted for a day. She then got up and was about the house but did not seem just at herself. Following week had three or four attacks of unconsciousness lasting about an hour. When she came out of these attacks she had a wild look in her eyes, pulled at her hair and back of her neck, and on one occasion bit her tongue and hand. She was first seen November 20, over a month from the time she was taken sick, and was only under observation two days during which time she had several attacks of marked lethargy. Physical examination was entirely negative except for increased knee jerks and suggestive Kernig. Pupils equal and react to light and accommodation, muscles of the eye normal. No Babinski, no ankle clonus, no tremor. Spinal puncture showed clear fluid under normal pressure, cell count of 1, albumin 1 plus, Wasserman reaction negative in all dilutions. The diagnosis in this case as in the former one was made on the presence of lethargy, diplopia and an atypical fluid.

## PNEUMONIA.

Stuart Mann, M. D., Moyock, N. C.

At this season of the year it is well to consider one of the most dreaded of diseases; namely, pneumonia which is now prevalent and is doing its deadly work and will continue with increasing prevalence until after the spring months. So it is well to reconsider some of the fundamentals of its nature, its prevention and treatment.

The fact that the death rate is increasing shows that there is need for more careful studies.

Pneumonia is a self limited disease usually running a definite course but sometimes indefinite. Is usually primary in origin affecting the right lung and the lower lobe, yet it may be secondary in origin and either unilateral or bilateral. Many things influence the course of pneumonia, for instance the idiosyncrasies of the patient and the environment all have a great deal to do with the cases; in consequence of which many types have been described.

Croupous or lobar pneumonia is characteristic, with well defined symptoms which may be readily and easily made out; viz., the initial chill, pain in the side, fever, and the physical findings will confirm the diagnosis. On the fifth, seventh, ninth, or eleventh day we may look for a crisis and every day the crisis is deferred, increases in direct proportion the probability of trouble, I refer to delayed resolution, abscess or at least tedious convalescence.

This paper is based on a series of cases observed during the spring of 1909, 1919 and 1920. The number of cases during this time was forty-three, all well defined types of the disease, the prevailing type being catarrhal or influenza pneumonia. Bacteriologists inform us that we have the influenza bacillus, in abundance, located in the smaller bronchi and combined with the diplococcus, the true microorganism of pneumonia. Thus we have a combination which, in effect, is more deadly than the German bullets. It is this type of pneumonia to which I have special reference as being the prevailing type which was very difficult to treat.

It is generally conceded that pneumonia is epidemic at times and with a

\*Read at twenty-fifth annual session of Seaboard Medical Association, Elizabeth City, N. C., Dec. 7-8-9, 1920.

high mortality. In connection with influenza we often have a condition not unlike the epidemic type. Aside from ordinary precaution and isolation, which is inadequate, what has been done along the line of prophylaxis? The North Carolina State Board of Health has been doing more along health lines than any State I know any thing of. I am proud of what our State has done and is doing, yet, it seems that something more definite might be done to assist in the prevention of this awful disease. Measles and scarlet fever, have no specific treatment yet we are compelled to enforce rigid quarantine and isolation—not so with pneumonia. Broncho-pneumonia is a reportable disease yet it appears that this disease has been neglected and many deaths might have been avoided had we more efficient methods of nursing—I refer to the importance of each county maintaining public health nurses sufficient to meet emergency. It will not be a useless expense as the nurses may find employment in many ways in the counties.

During the spring of 1909 in my first series of cases there were 17 which I had to treat within a period of 21 days and had it not been for able nursing I could not have expected to get the results I did. Out of one family of 10—7 contracted the disease, 5 recovered promptly, two developed pulmonary abscess which finally ruptured spontaneously. The coincidence in this was that these cases were sisters and the abscess ruptured the same night within two hours of each other.

In another family of 8—4 four contracted the disease another of 5—4 contracted the disease one of this number was an alcoholic over 50 years of age. He had delirium tremens and a very slow convalescence. Still living and well. Another of this group of the atypical type had delayed resolution complicated by pleurisy with effusion which I aspirated. This case made a slow yet steady recovery.

A case of last season is typical in many ways which I wish to detail showing the importance of scientific nursing.

Patient age 40. Family history good, she had never been ill except amenorrhoea for several years standing, cause not known, weight 180 lbs. She was taken in the usual way with chill, catarrhal symptoms, headache, backache, sneezing, weeping, in short pains all

over her body, fever ranging steadily up reaching 103 to 104, not able to sleep, this lasted several days at which time crepitation was made out posteriorly with large area involved. A pseudo-crisis was reached on the 10th day at which time I congratulated myself that the case was doing well when to my surprise there was a distinct relapse with a similar involvement of the other lung and with most excruciating pain. Beginning on the 11th day we retraced our former treatment as best we could with a slight improvement. About the nineteenth day there was another relapse or an exaggeration of all the symptoms with both lungs involved posteriorly. At this time we succeeded in getting a trained nurse and with careful nursing she made a slow but tedious recovery, not withstanding that giving a small piece of beef steak almost precipitated the third relapse.

#### *Treatment.*

It is agreed that pneumonia is one of the most dreaded diseases and we should direct our treatment to every thing that will aid and assist our patient through the attack. Treatment is necessarily empirical yet we must place the treatment on as rational a basis as possible.

The serum treatment is in the experimental stage and we as practitioners, cannot afford to accept it, certainly until our State Board of Health has endorsed a definite procedure. This being true, and with no treatment we must study each case not only in the usual way but we should also consider Blood Pressure findings as much as our thermometer.

In all cases we should secure a trained nurse. It is the best spent money ever spent to have a nurse and a complete case record.

Preparation of patient—All clothing is removed, and gown is to be worn which opens all the way down the front so as to have easy access for bathing, counter irritants, cotton jacket, etc.

The room should be on the second floor to secure better ventilation and to admit lots of sun light—the bed should be a single one and with a suitable mattress—bed placed so that the attendants may have access on either side.

Feeding—Much depends on diet. In all cases strict directions should be given and enforced, especially where there is gastro intestinal disturbance,

which we often encounter. Milk, should be given very guardedly on account of flatulence. Predigested beef, cereals, broths, toast, eggs, fruits, are admissible and also liberal quantities of water.

#### *Medicinal Remedies.*

In the beginning give hot drinks, hot applications and probably a Dovers powder at night. With the onset we have an overburdened liver, heart, and kidneys and a torpid liver hence the initial dose of calomel, divided dose, followed with a saline—this may have to be repeated as indicated, for flatulence which must be relieved at once and here we get good results with castor oil and assafoetida. A snug cotton jacket, if properly applied, does great good—while it may not affect the pathological condition directly—yet it gives great deal of rest, relieving cough and severe pain. Furthermore it aids resolution and prevents extension of congestion. I realize there are some very eminent men who condemn the cotton jacket yet I have used it on almost all my cases, especially children.

After active elimination I have always used salol and spartein every 4 hours. Should there be any albuminuria I will withhold salol. Alternating with my salol and spartein, I always give carbonate creosote in capsules, every 4 hours. With the carbonate creosote I combine my stimulant, either strychnine or nitroglycerine depending on blood pressure. Usually in the beginning nitroglycerine serves me well and when the blood pressure is about normal I prefer some other stimulant, like strychnine. This should not be started too early; the nitroglycerine brings out the peripheral circulation,—heat radiation so to speak, thereby the temperature is better controlled.

Much depends on as near a normal heart action as possible. When the heart lacks quality and the second pulmonic sound is accentuated we may use strychnine. In exceptional cases when the heart is weak and lacks tone on the right side and a bloody expectoration then I like digitalis.

In cases when the expectoration is adhesive and cohesive, ammonium chloride in the form of Brown Mixture is indicated, the carbonate of ammonium in syrup of acacia works well with children. Sometimes when there is gastric distress I give just the plain spts. am-

monia with good results. It is worthy of note that *Tt. Strophanthus* is the ideal cardiac stimulant for children.

In cardiac failure with edema, adrenalin chloride is a life saver and should be carefully given either by the doctor or a trained nurse.

I have used camphorated oil in a few cases but not enough cases to give an opinion. Yet I am convinced of its value and will give it further trial. Complications have to be met as indicated. I have given a brief outline of a few cases of pneumonia as observed in three separate epidemics.

Conclusion—I think there should be several public health nurses in each county to assist in emergencies like we have had in recent times. In illness like pneumonia we have to administer medicines hypodermically and doctors, especially in the rural sections, need more efficient assistance. Many patients are not able to pay the price of a special nurse, yet these people need the best and should have competent aid when in need. People who can pay let them pay a nominal price to the county. In this way the death rate from pneumonia will be reduced and the sooner we wake up to the importance of more efficient ways of doing things like better roads and better nurses the sooner will there be many valuable lives saved and life will be worth living.

#### GROUP PRACTICE.

By Southgate Leigh, M. D., F. A. C. S.,  
Norfolk, Va.

Attending Surgeon and Gynecologist, Sarah Lee Hospital and Clinic.

The rapid advances made in the science and practice of medicine and surgery during the past few years, while eagerly welcomed by the profession, have nevertheless presented a serious problem which will require much effort to solve and arrange in a practical way.

The truth of the matter is that medicine has grown to be too big a science to be handled by old and time honored methods.

Among our predecessors, many great men, who became renowned through research and developments, and did much toward placing our profession on the high plane which it occupies today, were general practitioners, as the term

was used in their time, men who looked after practically every ailment, medical or surgical, which came to their notice.

Medical education, too, covered a comparatively small field in those times, even at the best schools. Take for example the University of Virginia. The Essayist was fortunate to have been a student of that great medical school, and was there at a time when it was a frequently boasted fact that no graduate in medicine had ever failed to pass a State Board of Examiners, and when a majority of the members of the medical corps of the Army and Navy were Alumni of the institution. That was in the days of Cabell, Towles, and Mallet. Knowing how thorough the instruction was under those great master minds, how difficult were the examinations, and how high was the standard compared with other first class schools, it is hard to realize that in those days some men succeeded in getting their degree in medicine in one year's time.

Now the minimum required in all medical schools is four years.

That shows us what tremendous strides have been made in our profession, in the past few years, how greatly our knowledge has been increased, and how widely the facilities for investigation and treatment of disease have been expanded.

There is no question about the fact that the conscientious men of the profession have been in a great quandary to know how to take care of this advanced situation in a satisfactory manner.

Specializing, starting many years ago, has of course rapidly expanded, until now in every important center there may be found competent men confining themselves to any one of a number of limited lines of endeavor.

These men are making good, are getting better results from their ability to concentrate on more limited fields of work, but the problem in a way is becoming still more complex.

The trouble about a specialist is that he sees the case entirely too much from the viewpoint of his specialty. However broad a man he may be, however hard he may try, he nevertheless cannot help being somewhat narrow in his medical ideas and practice.

At this point let me digress for a moment, and say a word about journal clubs or reading clubs, or whatever you may prefer to call them.

Such a club is a boon to specialists, if it be composed of a number of men in various lines, each reporting and discussing new ideas and methods most familiar to his work. These reports and discussions give men knowledge that they can get in no other way.

In other words at the weekly meetings, reports are made which from time to time cover all the specialties, medicine, surgery, children, obstetrics, X-ray, etc., and keep the members in at least superficial touch with the developments of the profession.

I cannot commend to you too strongly the advantages and importance of the weekly journal clubs.

But to return to our original line of thought.

Only too often, the patient goes to one specialist when he may need a different one or both. It is hard for patients to differentiate between medicine and surgery. And indeed the surgeon gets a large part of his major surgery from patients who consider that they have medical troubles, and who go to the medical men for advice.

And even the most sensible of patients do not understand why they have to be sent from one doctor to another, feeling that the man whom they consult should take care of the entire situation.

We frequently hear of an eminent internist in a large city north of us, who as a routine, sends his patients to from four to seven other men located in various parts of the city, for their special examinations and reports, before giving his final diagnosis and advice.

This gentleman must have a wonderful control of his clientele. But few of our patients would put up with such an expenditure of time and money.

Such an arrangement is unweildy and unnecessary.

But what can the conservative medical man do. He realizes that these various examinations and investigations are often necessary, and he cannot properly do them all himself.

It is to meet this very situation that the plan of group practice has of late, in certain sections, been developed. It is not in the least a new thing, but simply a development which is being

forced on the profession by the necessities of the times.

It simply means the grouping together in intimate professional and personal relationship, several men specializing in different lines.

The ideal arrangement is to have each specialty represented, and to have the group associated in the same offices and in the same hospital.

If it should not be feasible to have so complete an arrangement it is of course necessary to have the principal ones such as surgery and gynecology, internal medicine, urology and obstetrics together with the necessary X-ray and laboratory workers.

To be successful the members of the group must work together in the most intimate manner and with the greatest interest and harmony. They must feel that the patients coming to the group belong to them all, and must have the attention of all if necessary.

The great and overshadowing advantage lies in the practicability of frequent and informal consultations, both in the offices and in the hospital. For example a patient is examined by the gynecologist and it develops that there is also possibly some heart or lung trouble. While the patient is still in the examining room the internist is immediately called to pass his opinion on the medical condition.

In long standing digestive disturbances, the patient very properly is sent first to the internist, who does all of the preliminary work, aided by laboratory and X-ray, and when that is completed, and the case looks surgical, calls in the surgeon for advice and if need be operation. And even after operation the watchful aid of the internist is often of great assistance in tiding over difficult and worrying periods.

In a similar way the internist frequently has need of advice and assistance of the surgeon, the urologist, etc.

There are but few cases coming to a group that are looked after entirely by one man.

The advantages to the professional man lie in their ability to make better and quicker diagnosis, and to give more thorough and satisfactory treatment.

For the patient, in addition to the mutual advantages, already mentioned, there is much saving in time and expense.

It is not absolutely necessary that the doctors comprising a group be in partnership. It is, however, essential that they be closely associated as regards office and hospital arrangements.

Group practice has come to stay, the men who have already tried it, are practically unanimous in its favor.

A common sense arrangement, greatly helpful to both patients and doctors.

It is helping to solve many of the serious problems of the day, and is gradually spreading in those sections where its advantages have become known.

Our remarks so far, giving very briefly some of the advantages of group practice naturally imply that it is applicable only to the large cities.

That, however, is not intended. With necessary modifications the arrangement can be put into effect in the country districts, and I feel that certainly in a few years the country doctors may be forced to resort to it.

On first thought such an arrangement for country practice may appear to be impossible. The solution, however, will come eventually through the proper functioning of the local Medical Societies. In some sections of certain States, including North Carolina, the local societies have become small educational centers, with frequent meetings, well attended, and instructive sessions and with free interchange of knowledge, experience and advice.

In counties where such favorable conditions exist, and it should be so in a large proportion of them, the development of the modified group practice can be worked out without much difficulty.

Each county, or section, should have an X-ray machine. Let one man do that work along with his general practice, and with the understanding that he will make such examinations for all of the other doctors. Let another man develop a small laboratory where urgent and essential work may be done on the same terms. In a similar way have one man equip himself for difficult obstetrical work, also along with his general practice, but to be ready to help the other practitioners when needed. And so with children, urology, and emergency surgery.

This partial specializing will help the conscientious medical man, who nowadays knows that it is impossible for him to keep up in all departments of the profession. He can, however, while doing

general family work, equip himself both by study and the necessary appliances in one particular line, calling on his colleagues to aid him in those severe or difficult cases belonging to other special departments.

The latter part of my talk may have seemed rather theoretical, but I believe the plan can readily be worked out. The only obstacle in the way is the lack of cordiality between doctors, unfortunately existing in certain communities. Our county societies are, by the frequent bringing of the men together, gradually doing away with such unpleasantnesses. We are finding out rapidly that the other man is not such a bad fellow after all. Each of us has his imperfections and short-comings, but if we realize fully how short life is, and how much we may accomplish by united effort, such minor matters as envy and jealousy will soon be overlooked.

We must also never lose sight of the nobility of our calling, or by word or act permit ourselves to be unethical or unprofessional in even the least degree.

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### ARTERIOSCLEROSIS.

Clarence King, M. D., Franklinville. N. Y.

In the plan of Nature each period of life has its own particular dangers. Thus, in infancy the gastro-intestinal diseases are most to be feared; in childhood the acute infections like measles and scarlet fever; while in adolescence and early mature life the occupational diseases and accidents, the more chronic infections as typhoid and tuberculosis and the various inflammatory troubles of internal organs and structures predominate. But in old age and even in those who have not yet reached the allotted three score years and ten we find still other causes occurring as the most frequent destroyers of life. Here the secondary or terminal infections and the malignant diseases hold high rank; but even these are probably surpassed by the arterio-sclerotic changes in various organs with their resultant complications and logical results.

It is only within the last few years that either the common occurrence or the serious nature of arteriosclerosis has been fully recognized. The sphygmomanometer has undoubtedly been the

means of focusing attention upon the vascular system and of clearing up some of its problems. We have learned that sclerosis does not always fall with the same intensity upon each vessel of the body; but that it may remain local or nearly so and show itself only by derangements in a single organ or associated structures. Neither is marked sclerosis necessarily associated with much elevation of blood pressure. Even a reading of moderate height, such as we had thought well within the normal limits, may accompany a sclerosis in some organ or vital structure which may eventually result in death and possibly under such circumstances as to be inexplicable unless the vascular changes are fully recognized.

When arteriosclerosis is diffuse or attacks a large number of important vessels the resultant symptoms are various and may be grouped as "cardio-vascular." These include a high blood pressure, marked beading and tortuosity of the radials, perhaps dizziness or syncope and anginal pains or "neuralgia" in various locations. Besides these there are apt to be functional disturbances of the abdominal organs due to their faulty blood supply. Such cases ought to be easily diagnosed but unfortunately they are often overlooked for some time on account of the undue prominence of the functional symptoms, and especially if the patient happens to be a young or middle aged person. In our experience this form is most apt to occur in men who have followed occupations which call for severe muscular exertions and who have not "favored themselves" when they could; and they have usually been very hearty eaters. It is also met with in elderly persons who have led indolent lives and who have practiced excesses at the table, in the daily but not necessarily immoderate use of alcoholic drinks and tobacco or in the pleasures of society.

Local arteriosclerosis generally means kidney or brain. This form is more difficult to diagnose because a blood pressure reading furnishes us little or no assistance, although the age of the patient may arouse suspicion. If the brain suffers the greater part of the arterial degeneration an apoplexy or a thrombosis may be the first indication of serious trouble; sometimes, however, there may be slight antecedent dizziness upon rising or momentary mental confusion or

lapses of memory for names or recent events. But these are seldom severe enough to cause more than trivial annoyance and the patient himself and those about him usually consider him as in good physical condition, considering his age.

When arteriosclerosis falls mostly upon the kidney there may or may not be marked elevation of blood pressure; usually we find a fixed and rather low specific gravity of the urine and a moderate amount of albumen. The condition then closely resembles that of chronic interstitial nephritis; in fact it may be difficult or impossible to differentiate between the two during life, although many authorities, especially those of the Boston school, insist that the conditions are essentially different and that in the sclerotic disease the changes in the parenchyma, if they exist at all, are secondary to the vascular. Probably we can state that in the arteriosclerotic kidney the albumen will be greater in amount while the tube casts, both hyaline and granular, will be few, the blood pressure lower and the retinal changes, if any, scarcely perceptible.

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### CZECHO-SLOVAK COMMISSION

The International Health Board of the Rockefeller Foundation announces a co-operative program in public health, agreed upon with the government of Czecho-Slovakia. This program provides:

1. Lending to the Czecho-Slovak government the services of an American competent in Public Health Administration.
2. Fellowships for training a select group of young Czechs for service in the field of Public Health.
3. Co-operation in the development of a national public health laboratory service.
4. Expenses of a Czech commission to study public health administration in the United States and England.

This program is based upon studies begun some time ago, and to carry it out Colonel F. F. Russell went to Czecho-Slovakia last July. He was followed in October by Professor Selskar M. Gunn, formerly connected with the Public Health Department of the Massachusetts Institute of Technology.

Fellowships have been provided to enable nine medical representatives from Czecho-Slovakia to pursue courses in public health, hygiene and preventive medicine in the United States for 1920-21. The nine successful candidates are as follows: Dr. Dohnslar Pour, Dr. Zdenek Klan, Dr. Ferdinand Tomanek, Dr. Otocar Fierlinger, Dr. Jeseff Vesely, Dr. Bohuslar Feierabend, Dr. Vaclar Hee, Dr. Vaclav Dasek and Dr. Francis T. Netusil.

The nominations of these candidates was approved in joint conference between members of the Czecho-Slovakian ministry and two representatives of the International Health Board, Col. F. F. Russell, Advisor in Public Health and Laboratory Development and Edwin R. Embree, Secretary of the Rockefeller Foundation.

Public announcement of their fellowships has been made in Czecho-Slovakia by the Minister of Hygiene and those accepting the preferred courses agree to serve the Ministry for from three to five years after their return from America.

Five members of the Commission from the Ministry of Hygiene of Czecho-Slovakia have recently arrived in America as guests of the Foundation. They are:

Dr. Vladimir Basika, Chief of the Medical and Sanitary Department of the Ministry of Public Health of Slovakia.

Dr. Drhumil Vacek, General Medical Health Director in Brno, Moravia.

Dr. Ivan Halek, Member of Parliament, and General Medical Director in Bratislava, Slovakia.

Mr. Antonin Kolinsky, General Director of Administration and Finance in the Ministry of Public Health, Praha.

Dr. Vladimir Petrik, Medical Inspector in Bratislava, Slovakia.

They will make a tour of the country, which will include visits to Baltimore and Washington. Scenes of Rural Health Work in North Carolina, and Boston, Albany, Saranac, Toronto, Chicago and Columbus.

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The next meeting of the Tri-State Society will be held in Spartanburg, S. C., Feb. 16-17.

# The New Charlotte Medical Journal

Published Monthly by the  
Charlotte Medical Journal Company

M. L. TOWNSEND, M. D. Editor.

J. C. MONTGOMERY, M. D. Executor  
of the Estate of the late Dr. Register

CHARLOTTE, N. C.

"Read not to contradict and confute, nor to believe and take for granted, nor to find talk and discourse, but to weigh and consider."—Francis Bacon.

## GREETINGS.

We wish for you all a most prosperous and happy year. Formally stated perhaps but genuinely heartfelt.

A general survey of all trade journals indicates that from this date there will be a gradually increasing confidence in all lines of business and that the country now is beginning a new era of solid growth and prosperity.

Certainly money will not be thrown to the winds with such wild abandon as has been, but what is better is that what money we get will be worth par.

Possibly no class or profession reflects the general business and community conditions more quickly than the doctors.

With the country's conditions improving we can wish for you and bespeak for you a prosperous and happy year with every assurance of fulfillment.

## 1921 Prospects.

The Journal is glad to tell you that we have good things for you this year.

For one thing—Dr. Edward J. Wood, whose father in 1877 was one of the founders of the forerunner of the Charlotte Medical Journal, will serve as Department Editor of Medicine. Dr. Wood's work on Pellagra has given him world recognition and his recent two years in England, Europe and Africa where he has been studying the peculiar conditions and diseases prevalent in the tropics and sub-tropics places him in a position to speak with authority on the subjects so vital to every doctor in the South Atlantic Coast States.

In addition to the regular department of Medicine which he will conduct with reviews of the latest literature and practical every-day hints to the medical men he will submit various original articles on pertinent subjects, among which will be

"Schistosomiasis or Bilharziasis."

"Sub-acute Infective Endocarditis."

"Sub-acute Combined Degeneration of the Spinal Cord."

"Kala-azar," etc.

Beginning with the February issue Dr. J. Allison Hodges will present a series of monthly letters entitled "Clinical and Professional notes."

Dr. Hodges needs no introduction to the profession of "Dixieland," for every one of our thousands of doctors know that for years he has been in the very front in the battle to place medical science on the very highest plane.

His "Clinical and Professional Notes" will summarize and deduct practical lessons from years of experience and interpret these in the light of modern advancement.

The Journal is also glad to announce that there will be contributions from many others of the foremost men in the profession, so that we start the new year with the assurance of a bigger and better Journal than ever before.

The February issue will come to you bearing a new name but continuing the same publication founded in 1877. It is not local in purpose or inclination. It is for every doctor and nurse everywhere but directed especially to the 40,000 doctors and almost as many nurses in the territory of the Southland.

## RESULTS.

We all want to get on. We all want to earn more. The way to earn more is to learn more—and then do more. Sooner or later the good worker pulls ahead of the poor worker. Sooner or later the doctor who, when he finds a puzzling case, burns "midnight oil" in study and gasoline in extra trips to apply his knowledge, is going to pull ahead of the man who lounges in the drug store or his office, and surreptitiously boasts his superior skill to Bill Jones the blacksmith or Joe Smith the barber.

As water seeks its level so such a man will strike, or has already struck, his level. Truth crushed to earth shall rise again. In spite of all his pretense the people who furnish him his bread will know the truth—that he is a mediocre man, with more interest in “set-back” or checkers and his own pretenses than in typhoid, measles or mumps.

Aren't we all willing to pay more for a good suit of clothes or a good pair of shoes than for a poor suit or poor shoes. The world is looking more and more in every line of endeavor for results. It's results that count. It isn't the number of visits but the value of your visits to the patient that should be the unit of measure of your worth. To assume the responsibility of any case and then fail to do the very best it is humanely possible for you to do is nothing short of fraud and is as rank quackery as to advertise in the public press some “life giving balm” for all the ills of mankind including tuberculosis and ingrowing toenails.

To go a dozen times for a simple trouble that could have been corrected at once is obtaining money under false pretense and is only permitted because the person you go to see is ignorant of the real facts.

Qualify yourself to supply high grade service, then render that service—get results—and the other fellow will eat your dust.

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#### **The Tri-State Meeting in Spartanburg, S. C., Feb. 16-17.**

The present indications are that this meeting is going to be the very best ever held by the Tri-State Society. The program is now practically made up and is filled with papers by the very best men, members and invited guests, and is so arranged that no time will be wasted. There will be, however, plenty of diversion and entertainment so that it is predicted that every man attending this meeting will return home feeling well repaid for his trip.

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#### **Meeting of N. C. Surgeons.**

Preparations are progressing in a way to assure a most important meeting in Charlotte January 20-21 of the North Carolina section of the Clinical Congress of the American College of Surgeons.

The program as announced in this Journal last month will be carried out practically as announced.

Speakers and guests of world prominence will be present and a lay meeting in the Auditorium the night of January 20 will explain openly and to everybody just what the American College of Surgeons stands for and what a man must measure up to to be admitted a fellow.

This meeting will be of peculiar interest to laymen as well as doctors and there is every indication now that the meeting will have a crowded attendance.

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#### **A NEW NAME**

“The American Physician”—Our old friend “The Medical Council” comes to us wearing a new dress and a brand new name. The Medical Council has long been the sweetheart of the American Physician and always devoted to his best interests—hence it is most fitting and proper to assume the new name, that the twain may march hand in hand to greater achievements and nobler deeds. We know the American Physician and the journal now bearing his name are absolutely devoted to each other and we hope that hereafter every American Physician will solicit the good council and sound advice of this spouse in helping him to solve his problems of the day. To “The American physician” nee “The Medical Council” we extend our heartiest congratulations and best wishes for a long and useful life.

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**International Public Health Journal.**—The first number of the new International Health Journal is now out, issued by the General Medical Department of the League of Red Cross Societies at Geneva, Switzerland. This journal will be devoted almost entirely to public health work and preventive medicine and will be published every two months in four languages, French, English, Italian and Spanish. The editor is Dr. T. R. Brown, of Baltimore, and associate editor is Dr. W. F. Francis, of Montreal.

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**The next meeting of the Tri-State Society will be held in Spartanburg, S. C., Feb. 16-17.**

## BUBONIC PLAGUE IN U. S.

Somewhere between the Potomac and Rio Grande, in this long coast line, some one of our readers will one day meet his first case of Plague. This may be you and it may be the other fellow but we believe all doctors in this territory especially will be interested in the following history of bubonic plague in the United States as quoted from a very interesting article by Dr. W. H. Kellogg, of the California State Board of Health, which appears in the December issue of the American Journal of Public Health:

"The first appearance of plague on the North American Continent was in 1900 at San Francisco, when the body of a Chinese, dead of this disease, was discovered in the Chinese quarter.

"I was then bacteriologist for the City Board of Health, and the case was referred to me by the city physician, who was required to sign the death certificates of Chinese dying unattended by white physicians. We had been on the lookout for plague, as it was present in Honolulu, which port it had reached on its westward march in December, 1899.

"This case was proven bacteriologically to be plague, and the Board of Health of San Francisco, on receipt of the preliminary findings, placed the entire district known as Chinatown, comprising about twelve square blocks, in quarantine, the quarter being roped off and police placed on guard.

"The events which followed will be referred to later. For the present, suffice it to say that the disease continued to manifest its presence by the discovery of cases now and then until a total of 121 cases and 113 deaths had been reached by February, 1904, when the last case of this series was found.

"In May, 1907, a year after the great fire and earthquake, plague was again discovered in San Francisco. A sailor taken to the Marine Hospital from a tug in the bay was found to be suffering from plague, but he died without being able to give any account of himself, and the tug was lost off the Mendocino coast, thus effectually blocking any further investigation. On August 12 the second case of the second epidemic appeared, followed by 13 others before the end of the month.

"The citizens of San Francisco, including the politicians, the press, and

the doctors, had learned their lesson in the first epidemic, and, as a consequence, we have a history of events in 1907 and 1908 that is in marked contrast to that of 1900 and 1901. Doctor Blue was again called and early placed in charge and, with his previous experience and the unanimous support of all interests, carried on the work under the most favorable conditions, the details of which and results attained being too well known to need description here. The epidemic lasted six months, and the total number of cases was 160, with 77 deaths; this time not in the Chinese quarter alone, but scattered all through the city. The last case of the series occurred on June 30, 1908. During the year 1907 seven cases were found in Seattle, Wash. In the years intervening between February 1, 1908, and the end of the year 1915, inclusive, sporadic cases of human plague of squirrel origin occurred in California to the total number of 13 in the counties of Los Angeles, Alameda, Santa Clara, San Benito, Contra Costa, San Joaquin and Monterey. During the years 1916, 1917 and 1918 no cases of human plague are known to have occurred anywhere in the United States. Extension of the infection to the ground squirrel population of the rural territory adjacent to San Francisco was first demonstrated in August, 1908, although it is probable that the infection was carried from rats to squirrels in the vicinity of the Port Costa warehouses during the first epidemic in 1900-1904. This probability is indicated by the occurrence of two deaths from plague in widely separated locations in Contra Costa County in August, 1903. The ground squirrels of this state have, therefore, harbored the infection for nearly twenty years, and if it is not eliminated from among them by a very wide and expensive campaign of extermination there seems little room for doubt that a permanent endemic focus has been established. The extent of plague prevalence among the ground squirrels is shown by the following figures from the Public Health Reports of recent date. For the period of the report, which varies with different counties from a few days to three months, ending July 10, 1920, infected squirrels were found as shown below. Alameda County 28, Contra Costa County 46, Merced 1, Monterey 3, San Benito 16,

San Mateo 3, San Joaquin 4, Santa Clara 12, Santa Cruz 26, and Stanislaus 2.

"The figures for the total number of infected rodents found since the beginning of the work in 1907 are startling. In San Francisco the number of rats found was 398, the last one having been discovered in October, 1908, and in Oakland 126 rats, the last one in December, 1908. Alameda County has a record of 431 squirrels, the last being found in September, 1919. Contra Costa County holds the record, the total number of infected squirrels found being 1,698.

"Following the decade ending with 1918, plague showed a tendency toward recrudescence. In Oakland a series of 13 pneumonic cases occurred in August, 1919, the first of the series having its origin in exposure to plague-infected ground squirrels.

"This appearance of pneumonic plague in epidemic form, small as was the outbreak, is very disquieting. Plague of squirrel origin seems particularly prone to attack the lungs when transmitted to man, and the danger is that in another such series of cases a sufficient degree of specific organ virulence may be developed to insure the rapid spread of this type. If the conclusions of Teague and Barber are correct, and they appear most plausible, there is much to be feared from this contingency under circumstances permitting extension to some of our eastern states in winter. It is easily possible for a person, after inoculation by a squirrel flea, to travel to some eastern point, reaching his destination before the onset of symptoms. If now he develops a bubo with a secondary pneumonia, as did the first case of the Oakland series, in the proper climatic surroundings for transmission of the infection, the role of plague as a national problem would be immediately recognized. In October of this same year plague reappeared in New Orleans, following an interval of nearly four years since its first appearance in that city. This was followed by three more in October, three in November and five in December.

"So far during the present year plague has occurred in California (one sporadic case of squirrel origin), in New Orleans (three cases in May and June), in Galveston, Texas (two cases), in Pensacola, Florida (four cases in June and three in July), in Beaumont, Texas

(seven cases between June 26 and July 18), and in Port Arthur, Texas, one case in July). Rat examination by the Public Health Service in the above-named cities discloses a rat epizootic in Pensacola, Beaumont, Galveston and New Orleans.

"The disease is present in so many countries now that a list of those harboring it would include most of the nations of the world. In Europe it has been reported recently in Greece, England, Italy, Malta, Russia and France. In July, 1919, a dock laborer in Liverpool died of plague, and there is little doubt that the infection prevails among the rats of that city. Human cases have recently been reported from Hawaii, and a sharp outbreak is in progress in Vera Cruz, Mexico, where it was first discovered in May of this year. Several cases have occurred recently in Newfoundland."

#### Pellagra and Income Vary Inversely.

Washington—That pellagra varies inversely with the family income in the cotton mill villages of South Carolina is the conclusion drawn after a three-year study by the U. S. Public Health Service. This is the first reported study in which the long-suspected relation of poverty and pellagra is definitely measured.

As the income fell the disease was found to increase and to affect more and more other members of the same family. As the income rose, the disease decreased and was rarely found in families that enjoyed the highest incomes, even though this highest was still quite low.

Differences among families with the same incomes are attributed by the report to differences in the expenditures for food, intelligence of the housewife, and ownership of cows, gardens, etc. Differences among villages which were economically similar are attributed to differences in the availability and condition of food in local markets.

A recent statement by one of the largest life insurance companies in the United States indicates that the food standards of Southern wage earners must have improved remarkably of late, for the death rate from pellagra has fallen from 6.7 per 100,000 in 1915 to 2.3 in 1919.

## Urology

A. J. Crowell, M. D., Department Editor

### Treatment of Gonorrhoea.

Inasmuch as the essential pathologic lesion of the chronically inflamed urethra is an infiltration of its submucosa, the essential treatment of chronic urethritis, according to Edward L. Keyes, Jr., New York (Journal A. M. A., Nov. 13, 1920), is dilatation which shall be made to simulate massage as nearly as possible—dilatation applied both to the anterior and to the posterior urethra so far as the inflammation affects both portions of the canal. Dilatation should not cause bleeding; for bleeding is evidence of laceration, laceration is the occasion of infiltration, and infiltration is the lesion that we are seeking to relieve. Dilatation should not attempt to stretch scar tissue, because scar tissue cannot be stretched. The anterior urethra may profitably be dilated to from 28 to 32 F.; the posterior urethra (by means of the Kollman dilator) to from 33 to 38 F. The intervals between treatments should be from five to ten days. The application of injections and irrigations, however antiseptic, to the surface of the urethral mucosa can have but little effect on its pathologic processes. A mild urethral discharge may be controlled by a mild injection, and for this purpose astringent injections of zinc sulphate and similar substances are far more efficacious than are the antiseptics. If the treatments are gentle, it is often quite as well not to introduce any antiseptics into the urethra; but when beginning with a patient, or if there is any possibility of a reaction following the treatment, an antiseptic which washes out the major number of bacteria and tends to diminish the vitality of others is worth while. Massage of the prostate and seminal vesicles is the best substitute for the processes of Nature, and has the added advantage of being conducted in a relatively calm spirit. The urethroscopic treatment of granulations in the posterior urethra by the application of chemicals is most useful in cases that resist treatment by dilatation. But the urethroscopic treatment is not to be con-

sidered one of choice to replace dilatation—dilatation is always the essence of the treatment of chronic urethritis.

## Gynecology and Obstetrics

Robt. E. Seibels, M. D., Department Editor

**The Treatment of Incomplete Abortion**—The prophylactic treatment, considering that 32% of abortions are criminal, is important and lies in the education of the public and the cleaning up of the medical profession. There are probably but few of us who are not approached from time to time with some moving story of hard luck. Some of these cases are very sad and sometimes one is stirred to the depths by the force of the appeal, but the law is clear and the ethics are plain—there can be no compromise.

Where an abortion has occurred and we have seen sufficient proof to convince ourselves—a most important point is to be on guard against deception. The question arises whether it is better to clean out the uterus and treat the case as an incomplete abortion or to await symptoms, hoping that all the products of conception have been expelled.

Our rule is, if the patient lives in the city and can be kept under observation, if we believe the chances are in favor of her having passed all the products, we keep her in bed for a week, then up in a chair for a few days and under observation for a month. If no further hemorrhage has occurred we do not consider further treatment necessary. But if she lives out of the city or hospital time is an important economic factor, we prefer to be sure the uterus is empty before discharging her. If the case is obviously incomplete and there is no sepsis, the uterus is emptied with the gloved finger, under an anaesthetic, and she is kept in bed for a week afterward.

In a septic abortion, the patient is kept in bed on a liquid diet, the bowels moved each day and no treatment of a local nature given until the temperature has been normal five days. The infecting organism in these uteri is usually the streptococcus and any stirring up of the uterus earlier than this means diffusion of the process in a very large

number of cases—pelvic abscess, pelvic peritonitis and even general sepsis. The only indication for local treatment during the febrile period is severe or repeated hemorrhage.

After five afebrile days, if the cervix is not patulous, the vagina and lower uterine segment may be packed with gauze for 24 hours, and under an anaesthetic the gloved finger is used gently to remove the pieces of placenta adhering to the endometrium. The uterine cavity is then gently wiped out with gauze packing. There is usually no hemorrhage and no packing need be left in. The after treatment is as given above. Douches are, as a rule, not necessary and are never used before the fifth day when the cervix is usually well contracted and should be given with care to avoid allowing the tip to enter the cervix and to be sure that the force of the current is not sufficient to carry fluid past the cervix.

The sponge stick is the only instrument we use in these cases and this only with the greatest caution—nor do we ever use the intra-uterine douche. The possibility of rupturing such a uterus is a real one—cases have been so frequently reported where the most careful operators have plunged through the softened uterine wall with the curet or the douche tip. Further the curet easily tears through the endometrium, may open the adjacent sinuses, dislodge a thrombus and set up a spreading infection. Indeed, it seems no more logical to use a curet in an infected abortion than on the wall of an appendiceal abscess.

Flushing out the uterus with a solution is a relatively safe procedure only with a wide open cervix—for the slightest pressure on the fluid in the uterus may be sufficient to force it out through the tubes, as we have seen it strikingly illustrated at Cesarean Section. Here, with little or no back pressure, blood runs out of the fimbriated extremities of the tubes in many of the cases. So it is only a relatively safe procedure with a wide cervix and a very slight head of flow, and with such a cervix, drainage of the uterus is so perfect that but little is accomplished by it.

Those who treat these cases less conservatively point out that the temperature often comes down very rapidly after these cases are cleaned out and

therefore time is saved by emptying the uterus at once. This is not in accordance with statistics, for Hillis (Surg., Gyn., and Obstet., XXI 605) analyzed 200 cases and found that the stay in the hospital was shortened, the complications fewer, the mortality lower and the end result better where essentially this treatment was carried out as opposed to cases subjected to radical and prompt operation procedure in the presence of acute infection.

During the stay in the hospital as well as afterward, fresh air and nourishing food is of the greatest importance and the patient should take the best care of herself for at least three months after the abortion, to promote normal involution of the uterus.

## NEUROLOGY.

R. F. Leinback, M. D., Department Editor.

### APHASIA AND THE LINACRE LECTURE FOR 1920.

Among the clinical manifestations of organic brain disease, no symptoms have furnished a more absorbing interest to the neurologist than the speech disturbances—aphasias. Why this should be so is not difficult to understand. The intimate relationship existing between all intellectual processes and the use of language symbols establishes the close psychic connection on the one hand, while the apparent dependence of the proper exercise of the various language functions on the integrity of certain more or less sharply defined areas of the brain fixes neural relationships assuring the interest of the topographical physiologist.

Speech is a distinctive possession of man as against the lower animals, therefore, animal experimentation has been precluded and all data for the construction of theories of aphasia have had to come from the observation of disease or injury in man. In the beginning of the nineteenth century Gall enunciated the then obtaining views of the nature of aphasia. Since that time contributions, both of fact and theory, have been set forth by eminent men of all countries. Most important were the works of Broca in 1861 and of Kernicke in 1874. At the end of the nineteenth century it ap-

peared established that aphasias were due to the destruction of brain centres in which were stored visual, auditory or articulatory "memories." The year 1906 found the accepted views of the nature of aphasia assailed by Pierre Marie, with the advancement by him of the conception that all aphasias were built on the same functional base with the addition of anarthria (or aphemia) as the motor element. In 1908 an important discussion was held in Paris on the nature of aphasia.

Now again the subject of aphasia has been subjected to a critical exhaustive analysis by the eminent British neurologist, Sir Henry Head. Seizing the opportunity presented by the war of studying a large series of cases of head injuries with aphasic symptoms, Sir Henry has collected a mass of valuable data which he presented last year in the Linacre Lecture for 1920. The full text of this lecture appears in the most recent issue of the journal "Brain," and occupies nearly the entire number. This lecture once again throws open the entire question of aphasia. The conclusion which he reaches can scarcely be said to uphold any of the prevailing theories as regards aphasia. The older view of localization of language "faculties" is opposed vigorously, likewise the view that aphasias are dependent on destruction of visual or auditory "images." The theory of Marie and the French School is likewise repudiated. It is very interesting to note his words of commendation for the sagacity of his fellow countrymen of a preceding generation, Hughlings Jackson, in protesting as early as 1866 against the idea of a faculty of language.

The presumptive recovery of the cases studied by Sir Henry apparently precluded any contribution to topical diagnosis of aphasia. His cases have been studied from the clinical side wholly, and with the addition of various new tests of his own designing. He finds that the aphasias, when fully analyzed, do not fall into the generally accepted groups. The entire group of aphasias, as classified today, are reassembled and fused by Sir Henry under the head of disorders of "Symbolic Thinking and Expression" and then subjected to an analysis based on the results of clinical examination by his test. While warning against the erec-

tion of new types of aphasia, he finds that his aphasics may be grouped under four headings, insisting, however, that it is necessary to consider that these forms do not necessarily represent the elementary basis of the acts of speaking, reading and writing. The four forms of dissociation of symbolic thinking and expression Sir Henry gives us are (1) Verbal Aphasia, (2) Nominal Aphasia, (3) Syntactical Aphasia, (4) Semantic Aphasia. Briefly, the first is a defect of word formation. The second is a defective use of names and want of comprehension of the nominal value of words or other symbols. The third is a jargon aphasia; while the fourth is characterized by a want of the recognition of the full significance of words and phrases. The meaning of a word or brief phrase may be understood, but the synthesis of ideas derived therefrom is lacking. For fuller appreciation of the distinctions between these forms, the reader should consult the original article, as space does not permit here.

It is not too much to say that the attention of neurologists the world over will be focussed on this communication of Sir Henry Head. It is possibly unlikely that his classification will at once be accepted. This being the first exhaustive communication on aphasia growing out of war experiences, further communications on this subject from investigators of other nations engaged in the war, particularly the French School, will be awaited with intense interest. However, the Master and Council of St. Johns College, Cambridge, have done themselves honor in selecting this eminent investigator to deliver the Linacre Lecture in 1920.

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A man with a reputation for great learning was once asked how he managed to know so much. "I don't know much," he replied, "but I do know where to find the things I want to know."

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His associate once said: "I have never seen Judge Gary rushed." Perhaps that is the secret of his ability to direct the largest organization in the world. He keeps a level head and makes every minute count.

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The next meeting of the Tri-State Society will be held in Spartanburg, S. C., Feb. 16-17.

## Orthopædics

Alonzo Myers, Department Editor

### Reposition and Retention of Fractures by Means of Screw and Plaster Splint.

By Kurt Ansinn, Archiv f. Orthopaed.  
u. Unfall Chirurgie.

The author describes a new and very simple method to gain perfect apposition of the fractured ends, whenever traction has failed and open operation is undesirable.

The technic is as follows: A long screw (a) is driven into the fragment which cannot be reduced. The screw is placed perpendicularly to the bone. After that a plaster of Paris splint is applied leaving the end of the screw out of it. Over the protruding part of the screw a metal disc (b) is placed and a nut is screwed on. After the splint has hardened, the nut is tightened with a key (d) until the fragments are in position. This process takes place behind a fluoroscope. The screw is left in place about fourteen days. At this time it is removed with ease and safety that the fragments will hold since consolidation has already occurred.

The author says he has used this method in various cases and with great success.

### Bone Changes in Feet Following Fracture of Vertebra.

Lloyd Bryan, M. D.

Am. Jr. Roentgenology. 1920, Vol. VII, Page 3.

Attention is called to the fact that bone changes are associated with nerve lesions and are frequent. Among these are Charcot joints and changes in the phalanges, metacarpals and metatarsals in leprosy, and syringomyelia. Little attention has been given to the bony changes in legs and feet following fracture of the vertebra, hence these cases.

The first is that of a man who eleven years previous had fallen from a scaffold, fracturing the spine and giving typical symptoms. To the present the sensory disturbance of feet and legs had not improved; the legs showed muscular atrophy and the toes plantar flexion. Contracture had necessitated amputation of the second and third digits of right foot three years ago, and of the

fourth digit of left foot one year ago. There was a small ulcer of the left foot at base of fifth digit.

Roentgen examination showed flattening and thickening about superior surface of both ankles. There was a loose fragment on the right side. The left foot showed dislocation of the third metatarsal phalangeal articulation and erosion of the distal end of proximal phalanx and sharp spur on lateral surface. The proximal phalanx of the fifth digit showed erosion of the base and hypertrophic changes. Relatively similar pathological changes were demonstrated in various parts of the right foot.

The other is a case of fractured vertebra eight years previous, the left limb only being affected. He now has anesthesia of left heel and posterior portion of ankle, plantar and dorsal surfaces of lateral portion of foot corresponding to the cutaneous supply of the external saphenous and internal calcaneus and external plantar nerves. There was an ulcerative area on the plantar surface of left heel, and sinus leading to the bone. Roentgen examination showed increased density of os calcis of lower two-thirds. Plantar surface is broken up into several fragments, and hypertrophic changes exist.

The deduction from these cases is that the bony changes may be accounted for by the theory of repeated trauma to bones or joints lacking the warning sense of pain.

### Orthopedic Deformities Due to Calcium Deficiency.

Frank E. Peckham, Providence, R. I. (Journal A. M. A. Nov, 13, 1920), asserts that knock knee, bow legs, flatfoot, lack of union or delayed union in fractures and even arthritis may be the direct result of calcium deficiency and that sterilized and pasteurized milk plays a great part in the causation of these conditions. When calcium metabolism is interfered with, the mucous membranes may suffer in direct consequence. Here seems to be a line of thought that directly connects an increase of intestinal mucus and consequent dyspeptic conditions with patients who began life as bottle-fed babies. This kind of reasoning at once places calcium deficiency as, at least, a factor in a certain percentage of cases of arthritis; and if this is taken into account, it

will afford much aid in the treatment. In any deformity, Nature always tends to make the part grow back to normal if the physiologic machinery is working properly. When orthopedic deformities are brought for treatment, the fundamentals resting on the physiologic processes must be taken into account. The results of such treatment are very evident. If fresh uncooked milk, orange juice, and in many cases, thyroid extract, are administered, the difference in the result obtainable is often remarkable. Another important thing is the addition of lime water to all milk given. Cow's milk is acid, and in the winter when ensilage is used, the acidity is much greater. All milk should be tested with litmus and sufficient lime water added to render it alkaline. It should not be guessed at. The acidity may nullify any good that might otherwise be derived.

## Nurses Corner

Edith M. Redwine, R. N., Dept. Editor

What is a central directory and of what benefit will it be to me as a nurse doctor or a lay person?

This question is ably answered by Miss Grace M. Cook, of Indianapolis, in a paper read at the convention of the Indiana State Nurses' Association and published in a current number of *The American Journal of Nursing*.

"A central directory," says Miss Cook, "is an institution, owned and controlled by nurses, not by a nurse or an individual, and operated for nurses and for the best interests of their profession, not for pecuniary profit. It is, or should be, a headquarters for nursing interests and an aid to the medical profession and the public in securing efficient care for the sick. Then why if this be true, must our central directories be continually struggling for existence? A nurse, to register with a central directory, must be a State registered nurse. Sufficient time is given new graduates to take their State board examination, and time is allowed new nurses coming into the State, to take out their reciprocity papers.

Most directories require that a nurse be a member in good standing of her alumnae, which means, as you know, that she is a member of the district as-

sociation, State association, and national association.

A letter from the superintendent of her training school is also required. This of course, is a little trouble or "red tape," as some are pleased to call it. It is much easier to send \$10 or \$5 and have no questions asked, and this would be all well and good, if all women calling themselves nurses were registered nurses, but they are not.

Do you who have spent at least three years in preparing yourself to practice your profession, want to work in hospitals, in homes, and elsewhere with these self-styled nurses, receiving in many cases the same remuneration, the same credit and the same criticism?

But you say, "How can central directories prevent this?"

If every registered nurse registered with a central directory, and if every hospital and every doctor called a central directory when in need of the services of a nurse, how long do you think these self-styled nurses could last? It is the duty of nurses to make the central directories 100 per cent efficient, and then to teach the hospitals, doctors and the public to use them.

The national Red Cross realizes the usefulness of these official directories and whenever and wherever possible it makes them headquarters for its local committees on Red Cross nursing service.

Business and professional men and women make use of them. It would be impossible to enumerate the many questions asked of them each year. During the recent epidemic of influenza, when nurses were scarce because of the war, and doctors could not be reached for hours many people called to ask what preventive measure they might adopt and only recently early one morning, a woman called a central directory to ask what she might do to rid her Angora cat of fleas. This seemed an unusual question but fleas invaded many homes this summer, and they are a real menace to health and happiness, especially happiness. Central directories are for service.

Many nurses when approached about a central directory, say, "But I do not need to register for calls, I now have more than I can care for." Perhaps you do not need a central directory to keep you busy, but your profession needs it and you are a unit in that profession.

We hear that commercialism is invading our ranks, and so it would seem when nurses take that attitude. But will a nurse profit by it? You are held in esteem and worth only so high as your profession is held. Years ago the barber did all the surgery that was done. Today surgery is one of the greatest and most respected of professions. Why? Attend a few county, State and national medical meetings. The medical profession stands where it does today only because doctors of the world realize the importance of standing together.

How many doctors do you know, who do not attend medical meetings, and who do not take one or more good medical or surgical journals?

If you know one, how much respect have you for his ability?

A doctor has the same right to question your ability, when he finds you are doing little or nothing for the advancement of your profession.

Why should a busy doctor be expected to remember your telephone number, or a superintendent of nurses'; or why should her assistants, who are employed to conduct a training school, be expected to conduct a registry for nurses? They have all and more than they can do.

Your name, it is true, may be listed in the classified list in the telephone directory, so also are the names of women who have never been farther in a training school for nurses than the kitchen.

Many central directories keep a list of attendants for the convenience of the public, but never under any circumstances, is an attendant sent out as a trained nurse. I hope the time is not far off when these women will no longer be connected with our central directories, not that we do not need good attendants, but they should not be confused with the nurse. The attendant has her place, but she is not a trained professional woman, and just so long as the central directory continues to send attendants into the homes to care for the sick, just so long will the public have a confused idea of a nurse.

Young women who might otherwise take up nursing as a profession, come in contact with these attendants, who are not always of the best type of womanhood, and their estimation of the profession of nursing is based upon that observation of these women, for are

they not sent out by a recognized directory? Thus far, it has seemed best for central directories to keep in touch with them. Those of you who were fortunate enough to hear Miss Parsons address yesterday, will remember that she said for our comfort that "God still puts it into the hearts of young women to want to be nurses." Is it not our duty to do all in our power to place our profession on the highest plane attainable, that such young women may not be disillusioned when they reach their hearts desire? This is what the central directories are striving after as well as being a place where private duty nurses may register and receive calls."

At the convention of the American Nurses' Association, held in Atlanta, Ga., this year, it was advised that, "so far as possible, district associations establish registries, and that co-operation of hospitals, lay people and doctors be sought in order to bring about satisfactory conditions in each locality."

The Private Duty Section presented this resolution: "That all nurses should affiliate themselves with the authentic nursing bodies of their localities, especially the nurses' central directories, and that they should meet often and discuss their various problems and the solutions of the same, and in all things seek co-operation, for in union there is strength."

At the meeting of the Board of Trained Nurses of North Carolina, held in Raleigh recently certificates of registration were issued through reciprocity or recognition to 19 nurses registered in other States, and to Miss Olga Elna Johnson, a professional nurse from Langgade, Copenhagen, Den. In addition to these 74 certificates were granted to nurses who passed the examination given by the board.

The highest average on examination was made by Bessie White Stanford, of St. Peters hospital, Charlotte. Her average was 94.66. Following her closely were Marguerite Salters, with 94.33; Annette Alpirt, 93.14; Kathleen Parker, Annie E. Spruce, Alda Grayson, Anne Ludlow McGehee, Dorothy Sloane, Nell Hamlin and Bedia McGaskey.

#### *Those Given Certificates.*

Below are the names of the young ladies who took the examinations and the schools in which they secured their education.

- Baptist Hospital, Columbia, S. C.—  
Lolia C. Porter.
- Central Carolina Hospital, Sanford—  
A. Leyce Cheek.
- Charlotte Sanatorium—Nola Currie,  
Marguerite Salters.
- City Memorial Hospital, Winston-  
Salem—Ruth Johnson, Mary Lyons,  
Viola G. Smith, Dovie Shore.
- Cumberland General, Fayetteville—  
Sarah G. Currie, Annie Pate.
- Gaston County Sanatorium, Gastonia  
—Lonnie Jackson.
- George Washington Hospital, Wash-  
ington, D. C.—Nell Hamlin.
- Gordon Kelly Memorial, Tampa, Fla.  
—Mary R. Bain.
- Highland Hospital, Asheville—An-  
nette Alpirn.
- High Point Hospital—Lillie Pearl  
Wood, Carrie Faye Cunningham.
- Highsmith Hospital, Fayetteville—  
Mamie McKinnon, Lorena Parrish,  
Nellie T. Stanton.
- James Walker Memorial, Wilmington  
—Vera Jane Branch, Margaret C. Gal-  
laway, Janie E. Walton.
- Long's Sanatorium, Statesville—An-  
nie Belle Hoyle, Mary Reid Sharpe.
- Mary Elizabeth Hospital, Raleigh—  
Susan Vernia Irwin, Mary Anna Mey-  
ers.
- Mercy Hospital, Charlotte—Sr. Mary  
Alphonsus, Annie A. Blackwelder, Ruth  
A. Boyette, Elsie M. Peeler, Mary E.  
Walley.
- Meriwether Hospital, Asheville—  
Martha K. Brooks, Mabel Kincaid,  
Constance Reeves, Ila May Reeves,  
Dorothy Sloane.
- Mission Hospital, Asheville—Jose-  
phine Burgin, Elva Hartness.
- Moore-Herring, Wilson—Alta Lee  
Smith.
- Park View Hospital, Rocky Mount—  
Josephine S. Reeks, Mary Louise Swank.
- Parrott Memorial Hospital, Kinston  
—Bodie Ann McCaskey, Kathleen  
Parker.
- Phoenix Hospital, Phoenixville, Pa.—  
Helen E. Young.
- Presbyterian Hospital, Charlotte—  
Hallie E. Moore.
- Pryor Hospital, Chester, S. C.—Irene  
Anderson.
- Rex Hospital, Raleigh—Murhl E.  
Cabe, Rebekah F. Redford, Myrner B.  
Straughn, Nora A. Watkins.
- Rutherford Hospital, Rutherfordton  
—Alda Grayson, Vina E. Rayburn.
- State Hospital, Morganton—Minnie  
Louise Sharpe.
- St. Agnes, Raleigh, (Colored)—Jes-  
sie B. Alford, Theresa E. Barringer,  
Lila Mae Williams.
- St. Leo's, Greensboro—Sammie H.  
Burke, Lucile Pegram, Jessie Mae  
Roberts, Mrs. Ethel L. Shugart.
- St. Luke's, New Bern—Daisy Falls,  
Flora McDonald, Julia Mae Shope,  
Lillian M. Tilley.
- St. Peters, Charlotte—Goldie Howell,  
Bessie White Stanford.
- Watts Hospital, Durham—Annie  
Ludlow McGehee, Nannie Lou Norwood,  
Lucille Osborne, Annie E. Spruce.
- Wesley Long Hospital, Greensboro—  
Bessie May Cline, Monnie Currie.
- Wilson Sanatorium, Wilson—Jose-  
phine Parker.
- Benedict College Hospital, Columbia,  
S. C.—Anna E. Saunders (Colored).

## News Items

### SURRY COUNTY

The Surry County Medical Society met in Mt. Airy in the parlor of the Blue Ridge Inn Hotel, December 14, 1920.

The meeting was in luncheon form and fifteen members enjoyed the tempt-  
ing feast.

The following officers were elected for the coming year: Dr. M. A. Royall, President; Dr. E. M. Hollingsworth, Vice-President; Dr. Moir S. Martin, Secretary and Treasurer; Dr. H. B. Rowe, delegate to the State Society; Dr. J. W. Ring, alternate.

The Society meets four times yearly, Dobson, Elkin, Pilot Mountain and Mt. Airy.

Whereas one of our number, Dr. A. F. Jones, was accidentally killed at Cameron, N. C., by a train striking his automobile, we, the Surry County Medical Society, offer the following resolutions:

Whereas: The Surry County Medical Society has lost one of its most capable and faithful members, be it

Resolved, That we extend to the be-  
reaved family our sympathy in this  
their great loss, and be it further

Resolved, That a copy of these resolu-  
tions be sent to his bereaved family, a  
copy to Surry County papers, and a copy  
spread on our records.

**MARTIN COUNTY.**

The meeting of the Martin County Medical Society for the annual election of officers was held in the offices of Drs. Warren, Rhodes and Harrell in the Peoples' Bank Building in Williamston, N. C. After the scientific program the society adjourned to the Atlantic Hotel to a banquet which was most sumptuous and complete. After this the society visited the offices of Dr. Hugh B. York who gave a series of X-ray demonstrations.

The following men were elected to offices for the coming year:

President—Dr. Harrel.

V. Pres.—Dr. Godwin.

Secy. and Treas.—Dr. Wm. E. Warren.

**FORSYTH COUNTY.**

At the December meeting of the Forsyth County Medical Society, the following officers were elected for the ensuing year.

President—Dr. V. M. Long.

Vice President—Dr. Joseph F. Belton.

Secy. and Treas.—Dr. S. W. Hurdle.

The Society was the guest of the retiring President, Dr. S. D. Craig at a well appointed dinner at the Zinzendorf Hotel.

Dr. J. B. Whittington read a very interesting paper on bone surgery which brought forth a lively discussion.

V. M. LONG,

Secretary, Retiring.

**VANCE COUNTY.**

The Vance County Medical Society held a regular monthly meeting December 18. The following officers were elected: President, Dr. F. R. Harris; Vice-President, Dr. E. F. Fenner; Secretary-Treasurer, Dr. J. H. Wheeler.

Dr. Albert Smedes Root of Raleigh read a very interesting paper entitled, "Some Modern Methods of Treatment in Pediatrics."

JAMES H. WHEELER,

Sec-Treas. Vance Co. Med. Society.

Dr. Lucius Gage, whose home is in Chester, S. C., has become associated with Dr. B. C. Nalle in the practice of medicine in Charlotte, N. C.

Dr. Gage is a medical graduate of the University of Virginia and served as adjunct professor in medicine there for two years before leaving the institution.

Dr. Gage volunteered when the world war came on and was a member of the medical corps with the A. E. F. in France for two years.

**Section for Anesthetists in the A. M. A. in Sight.**—It is expected that formal action will be taken at the next meeting of the A. M. A. towards recognition of anesthetists by granting them a section in the Association. This recognition has been sought for several years and no better news can come to the first line workers in this specialty than the announcement above, as it will do much to establish the specialty in a professional way.

**New Admiral of the Navy**—Rear Admiral Stitt, at present Director of the U. S. Naval Medical School, has been appointed Surgeon General of the Navy to succeed Rear Admiral Braisted who is retiring at his own urgent request. Admiral Stitt has for thirty-one years given service in the Navy and his appointment will have the full support of the medical profession throughout the country.

**Increase in Annual Dues of the American Medical Association.**—The House of Delegates of the American Medical Association acted on a proposition submitted by the Board of Trustees to increase the annual Fellowship dues, modifying the by-laws so that an increase from \$5.00 to \$6.00 was made, effective for 1921. This increase has been deemed necessary owing to the great advance in the cost of material and labor in the printing trade.

**Honors for American Women.**

Miss Mabel T. Boardman, Secretary of the American Red Cross, and a member of the Board of Commissioners of the District of Columbia, has been awarded the French Reconnaissance Gold Medal, in recognition of her work for France during the war. The French Reconnaissance Bronze Medal has been awarded to Mrs. Elizabeth Boncroft, of Delaware, who aided refugees in the French devastated regions, and who organized relief for the French war orphans for the American Red Cross.

The next meeting of the Tri-State Society will be held in Spartanburg, S. C., Feb. 16-17.

### Investigates European Immigration.

Washington—Surgeon J. W. Kerr, of the U. S. Public Health Service, sailed for Europe on November 20th with Commissioner General of Immigration Caminetti to assist in the investigation of emigrant conditions in Europe. The hope is to devise additional measures whereby the immigration laws may be given greater force and may yet work less hardship on prospective emigrants.

### More Coffee Drunk Since Prohibition.

—The Secretary of the National Coffee Roasters' Association is authority for the statement that sixteen billions more cups of coffee have been consumed in 1920 than during the entire year of 1919. The increased consumption is attributed to prohibition.

**Government Notes.**—During the past year the Medical Department of the Army abandoned 21 of its 30 general hospitals, seven of which were turned over to the U. S. Public Health Service and the others closed.

The Surgeon General's Office from compiled statistics on the cost of venereal diseases in the army shows that during 1919 venereal diseases caused a loss of 1,923,420 days of duty among the troops. Since the estimated cost of such absences is at the rate of \$7 a day, the direct loss to the army from these diseases was \$13,463,940.

Surgeon General Cumming has announced the completion of plans for the treatment of 15,000 tuberculosis patients in the Public Health Service hospitals. A committee of tuberculosis specialists and members of the Public Health Service will visit the special hospitals to study the prevailing conditions with a view to the standardization of the methods of treatment. Surgeon General Ireland has issued orders that the complement fixation test be uniformly employed in the military service for the diagnosis of tuberculousis.

### ANESTHETIC CHART.

The National Anesthesia Research Society has adopted a uniform chart for use in all hospitals. After studying and comparing charts from all leading hospitals and clinics of the United States a committee devised the chart which is

considered to embrace all essential points in the administration of an anesthetic and leaves such a record as will speedily show the surgeon, anesthetist and nurse the history of their case.

This chart has been designed to show what happens to the patient and how he reacts to the various factors that bear upon his case. Detailed records of this nature have been all too few. Blood pressure, respiration, the color of the skin and the reaction of the pupil are of prime importance and the requirement of such records will stimulate better work on the part of all. Such records, systematically kept, will yield information never before available to the medical and surgical world. In the interest of such information, the N. A. R. S. will print and distribute at cost this uniform chart to all hospitals using it.—Bulletin National Anesthesia Research Society.

## Publications Received

‘ENFERMEDADES DEL ESTOMAGO’ (Diseases of the Stomach). By Luis Urrutia, San Sebastian, Spain.

The author in his own work has for a number of years also been doing stomach surgery and in this way has been enabled to get a much clearer insight into actual conditions of gastro-intestinal pathology. His book is most comprehensive and gives in detail those methods of diagnosis and treatment which have proven of practical value in his own experience. Combining as he has Gastric Surgery in his work has enabled him to give a clear interpretation of the “pathology of the living.”

Among the subjects discussed are:

“Examination of the Patient.”

“Gastroptosis” Gastro-Coloptosis.

“Diaphragmatic Hernia of the Stomach.”

“Nervous Affections of the Stomach.”

“Acute and Chronic Gastritis.”

“Alterations of Secretion” and “Alterations of Motility.”

“Piloric Stenosis.”

“Gastric Ulcer, Duodenal Ulcer.”

“Tumors, Benign and Malignant.”

“Gastric Manifestations in Other Diseases.”

"HEART AFFECTIONS, THEIR RECOGNITION AND TREATMENT." By S. Calvin Smith, M.S., M.D., Instructor in Medicine, U. of P., Etc. 440 pages; illustrated; F. A. Davis Co., Philadelphia; \$5.50 net.

"THE ENDOCRINES" By Samuel Wylis Bandler, M.D., F.A.S.C., Professor of Gynecology in the New York Post-Graduate School and Hospital. Octavo of 486 pages. Philadelphia and London: W. B. Saunders Company, 1920; cloth; \$7.00 net.

In view of the great interest taken by physicians at the present time in Endocrinology this work is most opportune. It is ably written and comprehensive in scope, giving the student a clearer insight into this pertinent and vital subject. Obviously every person who claims to treat "sick" people should be familiar with the subject of which this work so ably treats.

"NITROUS OXIDE-OXYGEN ANALGESIA AND ANAESTHESIA IN NORMAL LABOR AND OPERATIVE OBSTETRICS." By National Anaesthesia Research Society, T. T. Frankenberg, Executive Secretary, 16 Broad St., Columbus, Ohio.

The society is justified in its belief that it has given in this book the very last word in the scientific literature of the subject covered.

"HOOKWORM AND MALARIA RESEARCH IN MALAYA, JAVA AND THE FIJI ISLANDS." Report of the Uncinariis Commission to the Orient. The Rockefeller Foundation, New York City.

This report is in most readable form and the findings of the commission are of vital interest to the profession in the subtropics of the South Atlantic Coast States.

"THE SPELL OF THE HEART OF FRANCE." By Andre Halleys, author of "The Spell of Alsace." Published by the Page Company, 53 Beacon St., Boston, Mass.

Not a "travel book" in the generally accepted sense, but a fascinating story specializing in the obscure and little known.

"A WONDERLAND OF THE EAST." "See America First" Series. A beautifully bound gift book of 335 pages by William Copeman Kitchen, Ph.D., portraying the natural beauties of the Mountain and Lake Region of New England and Eastern New York. Published by the Page Company, 53 Beacon St., Boston, Mass.

"Practical Medicine Series, for 1920." Vol. II—"General Surgery," by Ochsner.

Vol. III—"Eye, Ear, Nose and Throat," by Wood, Andrews and Shambaugh.

Vol. IV—"Pediatrics—Orthopedic Surgery," by Abt and Ryerson.

The 1920 series comes up to the formerly high established standards of this series.

"TRANSACTIONS OF THE TWENTY-SIXTH ANNUAL MEETING OF THE AMERICAN LARYNGOLOGICAL, RHINOLOGICAL AND OTOLOGICAL SOCIETY," Boston, Mass., June 2-4, 1920.

## Miscellaneous

"Epilepsy a Symptom of Splanchnoptosis"—The fact that what is usually called epilepsy is constantly associated with displacements of the abdominal organs has now been demonstrated in 810 consecutive cases or the writer. This demonstration has consisted of, first, the clinical history and, second, the physical examination of the patient; third, the serial X-ray study, and, finally, in the majority, the surgical exploration of the abdominal cavity. This record, with the additional significant fact that the visceral condition is always antecedents to the convulsion phenomena, as shown by the earlier development of constipation, and the absence of both hereditary factors and extra-abdominal lesions, forces the conclusion that so called epilepsy occurs only as a symptom of splanchnoptosis. This conclusion is further confirmed by these observations and the daily observation of general practitioners to the effect that epilepsy is always associated with

constipation; that the epilepsy is worse when the constipation is worse; and that the most effective, ready-at-hand relief from seizures is by laxatives. It was this fact, confirmed by surgical experience, that prompted writing his first article under the title of "Constipation and Epilepsy" and upon which he based a second article entitled "The Probable Cause and Logical Treatment of Epilepsy." Later experience has shown that constipation while antecedent to and associated with the seizures in these cases is, like the seizures themselves, a symptom of splanchnoptosis. The mere fact that many people who have splanchnoptosis do not have so-called epilepsy does not invalidate the observed and here recorded fact that eight hundred and ten people who did have epilepsy likewise had splanchnoptosis and that the development of the splanchnoptosis was antecedent to the epilepsy. The explanation of this difference will doubtless sometime be furnished through biochemic research. The basic fact is, that epilepsy is always associated with and is therefore a symptom of splanchnoptosis.

This basic fact is susceptible of verification at the hands of every practitioner who sees these cases and especially by every institution now acting in a custodial capacity to large groups of these unfortunates. To begin with, the cases must be really examined. This means that a thorough history must be taken. Then the patient must be stripped. The physical inventory should be carefully made, front and back, from head to foot. Special search should be made for possible foci of infection as auxillary factors in the case. The abdomen should be gone over, first, with the patient on his back; next, with him erect. A very little practice with abdominal percussion will enable the physician to detect the gastric note, the cecal note, the transverse-colonic note, sometimes the sigmoidal note. With the patient on his back, these notes will generally be found approximately in their normal positions, with the possible exception of the cecal note which in these cases will always be found low in the right lower quadrant, sometimes as low as Poupart's ligament. Now stand the patients up and it will be found that all of these notes, these separate areas of resonance, will have become obscured, more or less blended, by gravitation into

the lower zone of the abdomen. The only note that does not thus migrate downward is that of the cardia which, however, is generally farther around to the left and toward the back. In other words, the viscera will have dropped. This examination is all very easy, very important.

Then all cases should be given an X-ray study. When done right it is very clarifying; when done wrong it is very misleading. It is done approximately right when the following rules are observed: (1) The patient should be free from all laxatives or enemas for at least twenty-four hours before taking the barium meal; (2) the barium meal should be taken at 9 o'clock in the morning; (3) the first picture, to show the stomach and beginning duodenal transit, should be taken ten minutes later—with the patient upright; (4) the second picture, to show conditions at the ileo-cecal juncture, should be taken at 3 o'clock in the afternoon—with the patient prone; (5) the third picture, to show the condition and position of the colon, should be taken at 9 o'clock the next morning—with the patient upright. These pictures are essential; others may be taken or not according to the indications of the individual case.

The case with which all of this can be done, and the importance of the facts thus elicited, make such examination of these cases an imperative duty not only for individual practitioners but for institutions, hence, (1) All institutions for epileptics should be provided with a well-equipped, competent and liberally supported roentgenologic service. (2) There should be a roentgenologic survey of the entire epileptic population of all public institutions for the purpose of determining the condition of the abdominal viscera. (3) The diagnosis should be individualized in each case with reference, first, to visceral causative factors; and, second, to available treatment with the object and understanding that the treatment in all cases should be directed to overcoming such visceral conditions either by medical and hygienic treatment or, when necessary, by surgical restitution of the parts.

The same rules apply, with possibly greater force, to all hospitals for the insane,—but that is another story.—Chas. A. L. Reed, paper before Southern Medical Association, 1920.

### WHAT DID YOU MAKE IN 1920?

Work has begun on the collection of the income tax for the year 1920. Uncle Sam, through the Bureau of Internal Revenue, is addressing to every person in the United States the question, "What was your net income for 1920?" The answer permits of no guesswork. Every single person whose net income for 1920 was \$1,000 or more and every married person whose net income was \$2,000 or more is required to file a return under oath with the collector of internal revenue for the district in which he lives on or before March 15, 1921.

The penalty for failure is a fine of not more than \$1,000 and an additional assessment of 25 per cent of the amount of tax due. For wilful refusal to make a return the penalty is a fine of not more than \$10,000 or not exceeding one year's imprisonment, or both together with the cost of prosecution. A similar penalty is provided for making a false or fraudulent return, together with an additional assessment of 50 per cent of the amount of tax evaded.

#### Women Must Pay Tax.

The income tax applies to women as well as men. Husband and wife must consider the income of both plus that of minor dependent children, and if the total equals or exceeds \$2,000 a return must be filed. A minor who has a net income in his own right of \$1,000 or more must file a separate return. To be allowed the \$2,000 exemption a married person must be living with husband or wife on the last day of the taxable year, December 31, 1920. Divorcees, persons separated by mutual agreement, widows and widowers, unless they are the sole support of others living in the same household, in which case they are allowed the \$2,000 exemption granted the head of a family, are entitled only to \$1,000 exemption.

#### Tax Rates for 1920.

The normal tax rate for 1920 is the same as for 1919—4 per cent on the first \$4,000 of net income above the exemption and 8 per cent on the remaining net income. This applies to every citizen and resident of the United States. In addition to the normal tax a surtax imposed upon net income in excess of \$5,000.

#### Instructions on Form.

Full instructions for making out returns are contained on the forms, copies

of which may be obtained from collectors of internal revenue. Persons whose net income for 1920 was \$5,000 or less should use Form 1040A, those with incomes in excess of \$5,000 should use Form 1040.

Revenue officers will visit every county in the United States to assist taxpayers in making out their returns. The date of their arrival and the location of their offices will be announced by the press or may be ascertained upon inquiry at the offices of collectors. This advisory service is without cost to taxpayers.

#### Suspected Asynchronism of Respiratory Movement in Lobar Pneumonia.

C. F. Hoover, Cleveland (Journal A. M. A., Oct. 9, 1920), has seen three cases of lobar pneumonia in which there appeared this type of respiration. The impression conveyed is that of a "see-saw" between the abdomen and Thorax; but Hoover says such a statement cannot be accepted as proof of an asynchronism in activation between the intercostals and the diaphragm, but the vague term "see-saw" does not identify the evidences of activation and of excursion of the diaphragm as exhibited by movements in the hypochondria and in the costal margins. Hoover's patients with lobar pneumonia who presented the phenomenon were two young women and one man 40 years old. The two women presented the phenomenon in a striking way. One had lobar pneumonia at the right base and one at the left, and they were both very ill. The respiratory phenomenon in the two were identical, and a description of one of them will suffice for both. When first seen on the fifth day of the disease, the patient was breathing as hard as she could and the air hunger was so intense that it was very difficult for her to talk. The entire lower right lobe was infiltrated, and the entire lower left lobe showed evidences of pulmonary edema. During inspiration the abdomen was violently protruded and the outer portion of the costal margins and the hypochondria moved so violently in a lateral direction that they suggested the flapping of the wings of a barnyard fowl, but the movement of the median or inner halves of the costal margins was disproportionately small compared with the movement in their outer portion. During in-

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need especial attention during the next few months to fortify them against the prevalent diseases of Fall and Winter. The defensive forces of the body need to be reinforced, and to accomplish this, good hygiene, the best of food, and a dependable tonic are essential. To meet this last need.

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piration the lower end of the sternum was violently drawn toward the vertebrae, and the sternum as far up as Louis' angle shared in this movement. The manubrium itself was firmly anchored, but the entire sternum from Louis' angle to the xiphoid cartilage moved on account of a retracting force which was applied at the xiphoid process. During inspiration it was also observed that the ribs on both sides of the sternum, as far as the mid-clavicular line, were retracted during inspiration. This retraction was plainly visible as far downward as the sixth rib. The seventh rib moved slowly in a normal direction, and from the seventh rib down, the ribs from the costal margin to the posterior axillary line could be plainly seen to have an exaggeration of their excursion in a normal direction. Moreover, when the upper ribs were traced into the axillary line, it was found that there they also moved in a normal direction; so that throughout the entire length of the thorax there was on inspiration a distinct increase of its transverse diameter in the mid-axillary plane. It was perfectly clear that the ribs, from the second to the sixth, inclusive, were retracted during inspiration as far laterally as the mid-clavicular line; but when the arches of these ribs were examined laterally from this line, they were found to have a distinctly normal bucket-handle movement. It is not conceivable to Hoover that the intercostal muscles were activated as far as to the midclavicular line and failed of activation in those parts which lay to the median side of that line. Therefore he believes that the inspiratory retraction of the median portions of the upper ribs and sternum must have been due to the fact that in this region the normal results of the activating force of the intercostals were overcome by some conflicting agent.

#### Complement Fixation Reaction in Tuberculosis.

Of the 6,500 reactions studied by W. Warner Watkins and Clarence N. Boynton, Phoenix, Ariz. (Journal A. M. A., Oct. 2, 1920), 2,078 were clearly negative and 1,027 were inconclusive (over 50 per cent hemolysis). There were 1,344 moderately positive (from 25 to 50 per cent hemolysis) reactions, and 2,051 strongly positive (no hemolysis) reactions. Of 1,103 serums from pa-

tients definitely proved to be tuberculous, 865, or 78 per cent, gave positive reactions. The 238 negative serums in this group represent twenty-six moderately active, seventy-three arrested, and eighty acute or general tuberculosis, with no detailed information regarding fifty-nine serums. Of 521 serums from patients with clinical tuberculosis not confirmed by sputum or roentgen-ray examination, 336, or 64.6 per cent, gave positive reactions. Of 822 serums from patients in whom tuberculosis was suspected but not established, 303, or 37 per cent, gave positive reactions. Of 554 serums from patients who were not examined for tuberculosis, 183, or 33 per cent, gave positive reactions. Of amination revealed no evidence of tuberculosis, seven, or 4.2 per cent, gave positive reactions.

#### INSECT POWDER.

When the elusive flea, the nocturnal bedbug or the festive cockroach turns up his nose at insect powder instead of lying on his back and turning up his toes, there is a reason. The reason, according to a recent report from the Bureau of Chemistry of the Department of Agriculture, is adulteration and sophistication of the insect powder. Real insect powder, composed of pyrethrum, representing the powdered flowers of the chrysanthemum, will invariably cause the aforementioned species of insects to shuffle off this mortal coil. As far back as 1856, it was discovered that the powder of these flowers had the peculiar power to attract insects and then numb or kill them. Although early writers believed it harmless to man and larger animals, isolated case reports are available of harmful effects following the absorption of fairly large doses. Naturally, any substance with such potent properties early became the subject of exploitation and, unfortunately, insect powder appears to have been extensively adulterated since it first entered into commerce. From the first this adulteration consisted of mixture with the powder of other flowers, and with the grinding up of the stems and leaves as well as the potent portion of the plant. More recently, barium chromate, lead chromate, yellow ochre and similar substances have been used as adulterants. Because of the nature of the substance the determination

of the purity is a difficult matter. The best test is to try it on the insects. If it does not affect one or more species within a fairly reasonable amount of time, it is heavily adulterated. If, on the other hand, in the words of Glover, when sprinkled over them or placed in a circle and they are made to pass over it, for a few steps they appear very lively, but soon stagger, and after a few struggles, fall over and soon cease to live, then it is good insect powder. Microscopically, certain determinations may be made by those well informed as to the cellular characteristics of the plants and, chemically, the ash of the powder may be examined for foreign chemical substances. All of these methods the Bureau of Chemistry has summarized in a recent pamphlet. Genuine insect powder kills insects.—*Journal A. M. A.*, Sept. 25, 1920.

#### Forests in Russia Grown Like Crops.

Russia, with thousands of square miles of forests and trillions of board feet of timber, conserves her trees. Around Kieff, for instance, forests of red pine are grown like crops and every year trees are planted to replace those cut down. These tracts of forest land have always belonged to the state.

Contrast the above with a statement which recently appeared in an editorial in the *Editor & Publisher*, to the effect that in America we are taking 26,000,000,000 cubic feet of material out of our forest every year and growing less than a fourth as much in their place.

The original forests of the United States, according to Department of Agriculture estimates, covered 822,000,000 acres and contained 5,200,000,000,000 board feet of timber. Over two-thirds of this area has been culled, cut-over or burned, and three-fifths of the timber originally in the United States gone. Our timber wastage by preventable fires alone is \$28,000,000 a year.

America, long asleep, is beginning to awake to the needs of reforestation. And through certain appalling health statistics brought forth in the draft, the American Red Cross and other health agencies, the country is awakening to its health needs. Are you awake, or are you one of those behind-the-times persons who cut down all their timber without replanting and break all the laws of health through ignorance and

carelessness? One way to show your up-to-the-minuteness is by not forgetting to renew your membership in the American Red Cross during the Fourth Red Cross Roll Call, November 11-25.

#### A Five or Six Year Course in Medicine.

Instead of demanding two extra years of college work for admission to medical study, John A. Kolmer, Philadelphia (*Journal A. M. A.*, Aug. 7, 1920), believes that medical education will be better served by keeping the entrance requirements at the present minimum and extending the course in medicine one year, or two years if the medical school can guarantee a hospital internship so that the degree in medicine is conferred after the successful completion of at least one year's residence in an approved hospital. By reason of the added facilities for teaching the medical sciences, Kolmer would give all students successfully finishing the first two years' course in medicine the degree Bachelor of Science or Bachelor of Medical Science (B. Med. Sc.); the degree of Doctor of Medicine should be conferred after the successful completion of the entire course of five or six years. The first four years of the five year curriculum outlined by Kolmer provide for a liberal and comprehensive course in medicine, including instruction in the specialties. The added fifth year will afford more time for developing dispensary teaching, including sociological medicine and for more laboratory work in connection with the clinical branches. The fifth year, by providing ample opportunity for elective studies, will also enable the student to concentrate on one or more clinical or laboratory branches and engage in original investigations under certain conditions to better advantage than at present, without sacrificing the principal aim of the medical school to give a broad and comprehensive course of instruction before the student is permitted to begin specialization.

For the young man embarking on the sea of life, a good training ship is hard-ship.

The man who wins is the man who holds on as long as he can—and then doesn't give up.

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## Diabetes Mellitus and Myelogenous Leukemia.

To two cases already recorded in the literature, Reginald Fitz, Boston (*Journal A. M. A.* Nov. 13, 1920), adds a third. In this case the diabetes was mild and responded to dietetic treatment in the usual fashion, and was not appreciably influenced by roentgen-ray exposure of the splenic region, which had a markedly beneficial effect on the leukemia. The glycosuria cleared up promptly, disappearing after nine days of a fixed low caloric diet, and was accompanied by a rapid fall in the glycaemia. Acidosis did not develop. As was characteristic of myelogenous leukemia, the basal metabolic rate was increased, while the white cell count was high and returned to normal as the white cell count diminished. The lowering cell count and basal metabolic rate were ac-

companied by a diminution in the size of the spleen, although this organ was palpable at the time of the patient's discharge from the hospital.

**Agalactia.**—Ext. calabar bean, twenty grains to one ounce of lard or vaseline, applied to the breast, will restore the secretion of milk, when it has been suddenly or temporarily arrested. It must be carefully washed off before the child is given the breast.—*Medical Brief.*

Play pays only when it adds to our powers.

Business depressions are just as normal as booms.

The most profitless thing to manufacture is excuses.

